THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

VOL. VI. NO. 42. CLEVELAND, O., OCTOBER 16, 1884. $2.00 PER ANNUM SINGLE COPIES 5 CENTS

AROUND THE LAKES.

CLEVELAND.

The Thomas P. Sheldon takes coal to Milwaukee at 75 cents.

It is thought that more sail craft will be stripped and laid up this month than in the comparative month in any preceeding year.

Freights are steady and firm at this port at $1.05@1.10 on ore from Marquette, 70@75c from Escanaba 75 cents on coal to Milwaukee and Chicago.

At the Globe drydock the propeller Oscoda had her stern bearings fixed and got a new pintle to her rudder. The schooner Reindeer and Victor received some temporary repairs and had slight leaks looked after.

Chris Rohmer, the popular and enterprising news dealer, located at Michigan street swing bridge, Buffalo, N. Y., took advantage of an excursion from that port last week to pay us a visit.

The Lighthouse Board gives notice that on and after October 25 a ten inch steam siren will blow from Passage Island during fogs and thick weather. The blast will be five seconds in duration with intervals of twenty-five seconds.

A successful indicator has been placed on board the propeller Conemaugh. It shows which way the engine is working, and is located forward in the pilot-house, for the benefit of the captain. It is operated by electricity.

The schooner W. B. Ogden was in Smith's boxes Saturday for a slight overhauling, after which the schooner Constitution went on. While hauling the Constitution up the boxes gave way, letting her fall about four feet, which shook her up worse than the gale which she encountered last week.

A tug captain is not always supposed to know how to handle a schoonor or even a row boat, therefore two much adverse comment should not attach to the young man who capsized his boat in the river yesterday, getting wet himself and being obliged to assist his companion (who, by the way, had a dress on,) into another boat. The tug man with grace equalling that in the scene of the "Two Orphans," placed his wet coat around the shivering form of his companion and hastened away through a coal yard.

MICHIGAN CITY.

The Colborne arrived back after getting as far as St. Joseph. Her captain reported passing a wrecked schooner off the harbor with several men on board. The tug Pearl Campbell went to the rescue and brought back the crew of the schooner Early Bird. The vessel laden with lumber, is a total loss. It was owned by Captain E. F. Ault, of Muskegon.

The schooner Eliza, bound from Milwaukee for South Haven, was driven by Chicago and is sheltered here.

PORT COLBORNE.

The schooner West Side, of Oswego, in tow of a tug coming up, ran into the swing at the stone bridge, one mile from here, unshipping the bridge and damaging it considerably. The vessel lost both spars and topmasts and jibboom, and sustained other damage to her deck and stem. The vessel is owned by Daniel Lyons & Son, of Oswego, and bound from Oswego to Chicago with coal. She will likely be towed to Buffalo, where she will unload her cargo and have the damage repaired.

DETROIT.

Special to the Marine Record

October 14—The schooner Volunteer arrived here with her port bow badly broken. Her captain, A. T. May, who is also owner of the craft, said that night before last about 1 o'clock, while he was lying anchored at the head of Bois Blanc Island, with his lights out, he was struck by the barge Magnet, in tow of the steambarge Don M. Dickinson. He said that he could not understand how the Magnet could have struck his schooner as she did. She was the last in the tow, and the steambarge and other barge cleared his boat by considerable distance. The tow never even slacked down to see what the outcome of the collision would be, and had the schooner sunk, in all probability lives would have been lost. The barge struck the schooner about ten feet from the stern on the port side and buried her bow about two feet, smashing the rail and three strakes of the hull, and carrying away her anchor and thirty fathoms of chain. The hole in her hull reaches down to within six inches of the water's edge.

The purchasers of the old car ferry Michigan are debating whether to convert her into a towbarge or a floating drydock. There are nearly a hundred vessels owned at Marine City, and it is stated that that village will offer inducements for a drydock to locate there. There is also work for another drydock in Detroit or Windsor, and as the hull of the Michigan is Canadian, the owners, if she is converted into a drydock, will probably leave her at Windsor, as the duty would be large in making her an American craft.

Dunbar's drill Far Down is working night and day on the $200,000 contract on the Limekilns The contract is to be completed some time in the fall of 1886, and includes a cut one thousand seven hundred feet long on the west side of the present channel, and two thousand five hundred feet long on the east side. There will then be a straight course with a uniform width of three hundred feet, and four hundred at each end. The tug Shaughran left Wednesday night for the Welland canal, and will bring up the dredge Wild Irishman next week from Port Colborne. The lightship will remain in its present position on the crossing for the season. Colonel Kallman, who has had charge of the work for some time, is still engineer in charge.

The body found on Mamma Juda Island a few days since, and supposed to be Fred Gilbert, mate of the schooner Montcalm, turns out to be otherwise, and what it refers to is as yet a mystery.

A recent examination and report of vessels owned in the Detroit district is given as follows: Sail vessels 56, tonnage 34,181; steamers 137, tonnage 47,284; iron steamers 4, tonnage 5,146; barges 11, tonnage 2,998.

There has been no change as regards freight rates at this port, which have been without change for the past month. Wheat, Detroit to Buffalo, still holds at 1¾c, and to Ogdensburg, 4c. Vessel men hereabout will be well content if it holds at that rate, now that coal rates at Buffalo are improving.

The scow Idaho, through the pressure of the times, was libeled on Saturday by the United States marshall for repairs due John Oades, the well-known shipbuilder at this port.

The recent storms have done considerable mischief on Lake Huron, beside preventing steamers from getting round on regular time.

The tug Wm. A. Moore passed down on Friday with the disabled vessel Havana, for Cleveland.

The schooner Volunteer, bound to this port with cord wood, while anchored near Bois Blanc Island, was run foul of Friday night by a passing barge, and damaged to the extent of $200. The other side of the question is yet to be heard from in order to show up where the blame properly belongs.

Another mishap, although of a different character, took place on the same night in question, that of the scow Bedford erpsizing at the head of Belle Isle, loaded with brick, while in tow of the tug International, of Windsor. It appears that the tug grounded and the vessel, in order to sheer clear of the steamer, rounded too to suddenly, with the result above given.

On Friday night the steambarge Rube Richards and consort stranded on Bar Point, and after a delay of several hours Murphy Brothers despatched the International to her aid, and soon had her afloat without material injury.

The large schooner David Dows loaded here the other day, taking on a cargo of 90,000 bushels of wheat, which was the largest ever shipped from this port. But now comes the steamship Onoko, which will take 95,000 bushels, and 100,000 bushels, if it can be had. This exhibits new life in the way of shipment at old fogy Detroit, yet the rates are almost ruinously low.

Shipments at this port are becoming more active, with a slight advance. The schooner J. S. Richards was chartered for wheat to Buffalo at 1⅞c, the steamship Onoko, to arrive, at 1¾c. Otherwise quotations remain unchanged. J. W. H.

ASHTABULA.

Special to the Marine Record.

The schooner P. S. Marsh, bound to this port from Escanaba, with ore, encountered a severe gale on this lake last Wednesday, arriving minus her centreboard and all her head sails.

The steambarge H. Chisholm grounded in the river and completely blocked the channel for twenty-four hours, and had to be lightered before she could get to her dock to unload her cargo of ore. She was drawing fifteen feet six inches, and the water was unusually low at the time.

The schooner Sage, in being towed down the river, coal laden for Chicago, came in contact with the schooner P. S. Marsh, lost her jibboom and both catheads, carrying away the latter's mizzenboom and gaff. Tugs Dragon and Dexter had her in tow. She left in tow of the tug Owens for Port Huron for repairs.

Vessels, in entering this port, should keep well to the east pier, after passing the lighthouse, as the old pier in the channel is being dredged out.

At Devney's yard the schooner Marsh is receiving a centreboard, mizzenboom and gaff, schooner Verona some repairs, steambarge Vienna some repairs. J. P.

MILWAUKEE.

The vessel sighted bottom side up in midlake is believed to be the schooner Kitty Grant, which left Pentwater on Tuesday night for Chicago. She carried a crew of four men who are believed to be lost. Nothing has been heard of the crew that abandoned the unknown schooner sighted off Death's Door.

The propeller Douglass has been released from the beach off Saugatuck.

The schooner J. E. Bailey, ashore at Gill's pier, rests on a boulder and is in bad shape. A fourteen-inch pump lowered the water in her hold only six inches.

A sail boat with three men was cast adrift from the steamship Australasia off the Manitous nearly two weeks ago, since which time they have not been heard from. It is feared that they are lost.

The schooners Selkirk and David Vance have stripped and gone into winter quarters.

The schooner Oneida, reported lost, has arrived here. She rode out the gale at anchor at Rowley's Bay.

The barges H. J. Mills and W. A. Sherman, which have been in ordinary here for seven weeks, go to Marquette to load ore for Ohio ports.

The schooners G. C. Trumpff and Chris Grover have stripped.

Captain W. T. Spencer, of the steamship Massachusetts, and commordore of the Inter Ocean Transportation Company fleet, died at Chicago Sunday night. His body was brought here for burial.

The schooner Zach Chandler, which has been in ordinary here, goes to Escanaba to load ore for Cleveland.

FRANKFORT.

Special to the Marine Record.

The tug Jessie Slyfield has recovered the anchor and chains of the schooner Sinis, wrecked about ten years ago, near Frankfort. They were found in four fathoms of water.

Captain Lockwood, engineer in charge of the harbor improvements on the west coast of Michigan, visited Frankfort this week, viewing the harbor. He says he has recommended, in his report to Washington, that $50,000 be appropriated to complete Frankfort harbor. This will put two cribs to the end of the south pier and four on the north pier. This will bring it into twenty feet of water, and will make it a splendid harbor of refuge, and a splendid site for a coaling station for passing steamers.

The barge Gratwick and two consorts left for Tonawanda on the 7th, with two million feet of lumber. This was loaded in one and one-fourth days, which is remarkably quick time, and the best done on this shore, so far as known.

Mr. Chamberlain of the old Northern Transportation Co. steamboat fame, was in Frankfort this week. He is at present living at Glen Haven, Mich., where he has a splendid farm. Of this well known steamboat line, which at one time was composed of twenty-two staunch propellers, only two remain in passenger service. The Lawrence and Champlain, forming the North Michigan line between Chicago and Mackinaw. They are distinguishable from other boats by the white top smoke, stacks chime whistles and carry a double bright head light.

It is hard for vessels to get coarse cargoes to carry and what few are lucky enough to catch a load get such low rates that the expense eats it up. We look for an early close of navigation unless better rates are given.

C. B.

CHEBOYGAN.

The propeller City of Montreal ran hard aground near Church's Landing in the "Soo" river, bound up Sunday afternoon. The tug Peck has gone to her. She is in the mud and listed. She will be lightered off.

MARITIME LAW.

LIEN ALLOWED ON FULL AMOUNT OF FREIGHT CARRIED—DEMURRAGE, ETC.

Reported for the Marine Record.

In the District Court of the United States for the Northern District of Ohio.

Laban Fortier and Alfred Mayer vs. 500,000 feet of lumber, etc., Diamond Match Company, claimant.	No. 1,848. In Admiralty.

Earl Bill, the commissioner to whom this cause was by order of said court referred, submits the following report:

Said commissioner has been attended by the proctors of the respective parties at sundry times, and the testimony of sundry witnesses, whose depositions had been taken in this cause and in cause No. 1,849 in this court wherein Laban Fortier is libelant and the respondent and claimant in this cause are also respondent and claimant; all of which testimony, together with that of several witnesses taken by and before the undersigned has been, by the agreement of counsel, considered in both said causes, so far as the same is in its nature applicable and pertinent and the same having been heard together with the arguments of counsel thereupon, the undersigned after carful consideration thereof finds the facts and conclusions of law applicable thereto, as found in and by his report in said cause No. 1,849, so far as the same relate and are pertinent to this issue in this cause, and the undersigned hereby refers to, adopts and makes part of this report the facts and conclusions in his said report in cause No. 1,849, as specifically as if herein stated in detail anew, so far as they relate to the making of said contract of affreighment by and between said Tyler and these libelants, and the representations of libelants respecting the capacity and draft of said barges and the representations of said Tyler as to the depth of water in the Ontonagon river present and prospective; also as to the contract or arrangement between Tyler and claimant for the transportation of its lumber; the presentation recognition, and partial lading and amount so laden of said barge Sherman at Ontonagon, the shallowness of water in the river and consequent detention there with the damage thereby suffered by libelant, the failure to deliver the lumber on her rail, the difficulty of getting down the river to the lake with her partial load, the refusal to lighter, the necessity of extra towing by tug in getting out of the river, the signing and delivery of bills of lading and their terms, the presentation of said barges at Cleveland to the agent of claimant, the delay in unlading the same, the capacity and draft of said barge Sherman and the amount due as freight to libelants under the provisions of their said contract with Tyler.

It is further found that the amount paid by libelants on account of the failure to deliver said lumber on the rail of said barge at Ontonagon is the sum of $82.75; that the amount paid by libelants for the extra towing, made necessary by the shallowness of the water in the river in clearing from the harbor at that place is the sum of $30.00.

The undersigned therefore pronounces in favor of libelants, upon the matters in their said libel contained for the several sums below stated, to-wit:

For freight on 600,000 feet of lumber at $3.00 per thousand	$1,800 00
Less amount paid by claimant	641 43
Balance	1,158 57
Amount paid by libelants for extra labor in loading	82 75
Seven days delay of barge at Ontonagon beyond reasonable time at $50.00 per day	350 00
One day's delay at Cleveland in unloading beyond a reasonable time	50 00
Amount paid by libelant for extra towing at Ontonagon by reason of the shallowness of the water in the river	30 00
Total	$1,671 32

That libelants ought to have their decree for said sum of sixteen hundred and seventy-one dollars and thirty-two cents, with interest thereon from the 6th day of July, 1883, until the entry of said decree and the costs of this suit; and that they ought to have their lien therefore upon said 500,000 feet of lumber, seized by virtue of the *mesne* process, issued in this cause as security for the payment of said decree.

All of which is respectfully submitted,

EARL BILL, Commissioner.

COLLISION—DUTY TO EXHIBIT TORCH TO APPROACHING STEAMSHIP—POSITION OF SCHOONER'S SIDE LIGHTS.

District Court, United States, Eastern District of New York.

William H. Cramp and others vs. the tug Geo. H. Dentz and the bark Caro; E. T. Holliwell et. al. the tug Geo. H. Dentz and the schooner Josephine. Decided Sept. 22, 1884.

Benedict, J. These actions arise out of a collision that occurred on the night of August 15th, 1884, on the ocean, about three miles to the southward of the Scotland light ship, between the bark Caro and the schooner Josephine, at the time in tow of the steam tug George H. Dentz. The Dentz was bound to New York steering for the Scotland light. She had the schooner Josephine in tow upon a hawser some 75 fathoms long.

The bark Caro was outward bound, and was sailing close hauled upon the starboard tack. The tug was seen by the bark at the distance of some two miles, but the bark was not discovered by any person on the tug or on the schooner until collision between the bark and the schooner was inevitable. It is proved that the bark had her side lights set, and burning, and that the tug had also the proper lights set, including the vertical lights required to indicate that she had a vessel in tow.

The proof shows plainly that the sole cause of the collision was the failure of the tug to see the bark in time. It is also plain that the night, although dark, was a good night to see lights. In the pilot house of the tug were two persons, one engaged in steering, the other in looking out. This pilot house was only fifteen feet from the stem. A lookout stationed on the deck between the pilot house and the stem would have been in danger of being swept off by the sea. Under these circumstances it was not negligence to station the lookout in the pilot house of the tug.

The negligence on the part of tug, if she was negligent, was not in placing her lookout in the pilot house, but in the want of diligence in the man who was there placed. If the bark displayed the proper lights the failure of those in the tug to see the bark in proper time must be attributed to a want of a diligent lookout. If the proper lights were not displayed by the bark, then the failure of those in the tug to see the bark in time must be attributed to the negligence of those on the bark in respect to the lights.

One omission on the part of the bark in respect to her lights is conceded. She did not display a torch. In her behalf the contention is that the statute did not require her to exhibit a torch to the tug, because the tug was not approaching any point or quarter of the bark.

The testimony shows that the tug was approaching the bark upon such a course that she passed the tug within less than 100 feet. Under such circumstances the tug was an approaching steamer within the meaning of the statute, and the statute made it the duty of the bark, when she saw the tug so approaching, to show a lighted torch upon her bow. The burden is upon the bark to show that this omission did not contribute to cause the collision that ensued, and she has failed to do this. Upon this ground alone the collision must be held to have been caused by fault of the bark. There is, in addition, considerable foundation for the belief that the location of the bark's side lights was such as to render them ineffectual to warn vessels approaching at a certain angle. These lights were placed upon the mizzen rigging, and of course, aft the fore and main sail. The bark was sailing close hauled, and the testimony leaves it in doubt whether the clew of the sails set forward of the light would not shut off the light to a vessel ahead. I am aware that many vessels carry their lights aft, and that reasons are given for prefering that location but when on any vessel the side lights are placed aft the sails, I consider the vessel charged with the burden of showing clearly that the lights so placed would not be obstructed by the sails when set.

The testimony in this case has not satisfied me that the side lights of the bark would not be obstructed by the clew of her sails when close hauled, owing to her side light being placed upon her mizzen rigging.

An obscuration of the bark's side light by the clew of this sail would account for the fact proved that not only did the two men on the tug fail to discern the bark's light until she was upon them but the men on the schooner in tow of the tug also failed to see the bark's light until she was close at hand. The tug's lights were seen from the bark at a distance of two miles, and if the bark's lights were unobstructed it is difficult to understand why neither of two men on the tug and none of several men on the schooner in tow saw them until the bark was close by, although, as they say, all were looking forward for lights. An obstruction of the bark's lights by the clew of her sail would account for this, and, as before remarked, I am not satisfied that such was not the case, owing to the lights being placed in the mizzen rigging.

Upon these grounds, therefore, the libel of the owner of the bark Caro against the George H. Dentz must be dismissed, and the libel of the owner of the schooner Josephine must be sustained as against the bark Caro and dismissed as against the tug Dentz.

Edward L. Owen, for bark Caro; E. G. Davis and Joseph F. Mosher for tug Dentz; Hill, Wing and Shoudy, for schooner Josephine.

THE AMERICAN SHIP WINDLASS COMPANY.

Special Correspondence of the Marine Record.

PROVIDENCE, R. I., Oct. 4.

On the last day of September, amid the smoke and dust of a miniature summer cyclone, your correspondent boarded the elegant steamer Massachusetts, of the Providence Line, bound from New York for this city, and after a pleasant night's sail, reached here safely. The sun was not very high in the eastern sky when I wended my way to the extensive works of the great establishment whose name heads this article. The practical merits of the machines built by this company have made it one of the leading corporations for the manufacture of labor saving marine machinery in the United States. By the courtesy of the genial superintendent I was shown from basement to loft through this model factory, and after a close survey of everything in and about the works, have come to the conclusion that the Providence capstan and windlass are as near perfection as long experience and constant study and attention to detail can make them. The factory of this vast establishment, which, by the way, is a stock company, with a paid up capital of $100,000, is as complete in all its appointments as possible. The main building is 300 feet long, 54 feet wide, two and a half stories high and is fitted with new and improved machinery, all driven by a powerful steam engine. Connected with this building by a strong bridge is a capstan shop, 80x32 feet, two stories high, and a blacksmith shop beneath, which measures 45x50 feet. The company was established in 1857, since which time it has turned out upward of 5,000 hand and steam windlasses, beside an immense number of hand and steam capstans, of various styles and sizes, from that small enough for a river sloop to those large enough for a 3,000-ton ship or a big 6,000-ton screw steamer. As may be supposed, the works of this large industry cover an extensive plot of ground, and they also give employment to a large number of skilled mechanics, many of whom have been with them since the beginning, particularly the head men in each department, who have grown up with the business, making them very familiar with their duties and interested in the quality of the work turned out.

When their windlasses were first put on the market, more than a quarter of a century ago, they were viewed with much suspicion and prejudice, which has only been overcome by persistent exertions, indomitable will and severe and long-continued tests in practical use, and now that their practicability has been demonstrated and their superiority acknowledged by all, hosts of imitators have appeared in the market, each one ready to claim his imitation as an "improvement" on the Providence windlasses, many of these so-called improvements being nothing more than discarded ideas of the American company, and others being infringements on their patents, which render the vessels using them liable for damages.

Among the important improvements which have originated in the fertile brains of the practical men who manage this grand enterprise none have won more favorable comment among shipbuilders and owners than the manner of locking the wild cat or grab to the windlass, and known as the "new locking gear." By this arrangement the grab can be instantly disengaged from the windlass, or locked to it, by simply inserting a lever in a socket and lifting up or bearing down, as the case may be. In connection with this I may mention that a suit is now going on with one party for infringement of this patent, and others will no doubt be instituted. Another novel and ingenious invention they have introduced is a cable indicator, invented by Captain C. H. Phinney, of Boston, a well-known seaman and navigator, for measuring the chain as it runs out, or as it is hove in. As a merit of excellence, this company were awarded the first gold medal for the best capstan windlass at the centennial exhibition in Philadelphia, in 1876, and it is quite safe to predict that they will also carry off the highest honors at the grand World's Cotton Exposition, which will open at New Orleans, December 1st. Another valuable aid to the efficiency of the Providence capstan windlass is Southard's patent messenger chain attachment, for heaving up the anchor, in connection with a donkey engine, located in the after part of the deck house on a sailing vessel. This useful auxiliary was invented by T. J. Southard, the Richmond, Me., shipbuilder, and is furnished exclusively by the American Company. By this means labor, which would have taken a score of ancient mariners with their "Yo heave, ho!" an hour to accomplish, can now be performed in a few minutes by a man and steam. This is the only concern in the country, if not in the world, that depends entirely upon this one branch of industry to keep them busy all the year round, summer as well as winter, and their shops are fitted with the very latest and best machinery for facilitating the manufacture of this specialty, and, in fact, nothing seems to have been neglected in providing everything that is needed in a first-class machine shop.

Captain John Lowe, a well-known vessel master of your city, says that the invention of the improved Providence capstan windlasses was a most providential discovery, and any deck hand, possessed of a penny worth of horse sense can run them just as well as the most expert engineer. In addition to the superior workmanship and material of this capstan, over all other styles in the market, it has one feature which no other capstan has, and this is a very important one, viz.: when using the capstan under a severe strain on the power side, both the outside and inside pawls take the strain, thus furnishing double security against breakage and relieving the men on the bars from danger. To show the appreciation and preferences of shipmasters for these sailor saving devices it is only necessary to say that it is estimated that seven-eighths of all capstans sold in the United States last year were made by this company.

The characteristic feature in the construction of their improved power windlasses is that the windlass, and the engine that drives it, are mounted upon the surface of and secured to a single bed-plate, which is common to both, and also the wormshaft which is driven by the engine, and which connects the windlass with the engine, is located in a horizontal, instead of a vertical, position, so that the axis of the wormshaft is parallel, or nearly so, with the line in which the chain cables pull in passing over the wild cat to the hawse pipes, when the anchor is being hove up, thus saving much friction.

Another important and useful invention made at their works is the patent hawse pipe stopper, (which was illustrated in the MARINE RECORD several months ago,) devised by that able and well-known mechanic, Mr. Herman Winter, constructing engineer of the Morgan Line, N. Y. This arrangement insures a perfect air and water tight joint, is strong, simple and durable, and no sea-going vessel is thoroughly equipped without them. They can be put in and taken out in a few moments, and at the same time it gives the commander of a vessel every confidence to know that his anchors are ready for use at any moment without the trouble of bending chains. In addition to the above novel patent, the same inventor has devised an improved wharf drop, which is also manufactured by the enterprising American Ship Windlass Company. This bridgeway, as it is sometimes called, is designed to move up and down to meet the varying requirements of tides and light or loaded vessels, for passenger foot bridges, ship or ferry bridges. Each drop or bridge is twenty-five feet long by twelve feet wide and capable of taking twenty tons over it with the greatest safety, yet can be quickly raised or lowered by one man through a height of ten feet or more by the power of a thumb and finger, and it will remain secure in any position without any locking arrangement. They can furnish, at very short notice, the machinery for any size of a bridge, from that of a small passenger foot bridge to the largest ship or ferry bridge, and they have been supplied to the Metropolitan Steamship Company for their Boston (India) wharf, the Central Wharf Company, of Boston, and other prominent concerns have adopted them.

The various styles of windlasses manufactured by the American Ship Company are principally the Providence patent steam capstan windlass, the Providence patent steam capstan windlass, new style, the Providence patent capstan windlass, the Providence patent pump brake windlass, the Providence patent crank capstan windlass and several other kinds and sizes, which I need not name. Among the big ships and

steamers provided with patent Providence capstan windlasses may be mentioned the following: Ships Harvy Mills, Oregon, St. Paul, John R. Kelley, Commodore T. H. Allen, the big 2,400-ton four-masted ship Ocean King, of Boston, built ten years ago by J. Henry Sears; the 1,400-ton, four-masted schooner Haroldine, built last winter by N. Porter Keene, at North Weymouth, Mass., and the largest four-and-after afloat; also the big 1,500-ton five-masted schooner David Dows, built by Bayley Brothers, Toledo, a couple of years ago. Among the great steamships which have been supplied with these windlasses I need only recall the namas of the City of Pekin and City of Tokio, which were built years ago by John Roach, at Chester, Penn. When the government came to select the best steam naval windlass for the new steel cruisers Chicago, Boston and Atlanta, they chose the patent windlasses made by this company, in preference to those of all others. The windlass of the Chicago alone weighed no less than twenty tons, and has just been completed and shipped from their works. The new steel despatch boat Dolphin, for the government, also has a Providence patent windlass. I might go on and name scores of vessels, both steam and sail, on your own lakes, which are supplied with these modern anchor hoists, but let it suffice to say that the finest piece of mechanism put on board the largest steamer ever built on the great fresh water, inland seas was the steam power capstan windlass furnished the big Australasia, just recently completed at the yard of Captain James Davidson, Bay City, Mich. The new steel steamer building by the Union Dry-dock Company, at Buffalo, N. Y., is to have a duplicate steam windlass and capstan of that put on the Australasia. On the Atlantic seaboard scarcely a first-class steamship has been built during the past dozen years but that has had the Providence steam windlass aboard. In addition to the improved bed plate steam windlass and capstan forward, to handle the anchors and chains, the Australasia is also supplied with another new feature, which is a steam capstan aft, capable of doing the work of twenty men in heaving around the docks. Her windlass is furnished with an automatic lubricator, which keeps the cogs of the main driving wheel constantly coated with a lubricant, which is as evenly distributed as the ink on a perfec ing Hoe printing press. This is a comparatively small matter to look at, but is, nevertheless, of very great value in the working of this elegant labor-saving machine, and it also goes to show that the manufacturers are ever on the alert for improvements in the detail of construction as well as in the principal features of the perfected machine.

I shall close this letter by a word about the double-barreled steam capstan, which was made to meet a demand for a machine that would handle two lines at once, and which would be found very useful for river steamboats, tug boats and other vessels, which need to have a pair of lines or warps hauled upon at once.

G. FOSTER HOWELL.

MARINE HOSPITAL AT CHICAGO.

A discussion for the improvement of the Marine Hospital at Chicago is going on at that port. On last Saturday afternoon a small party, including the collector of the port, Captain Spaulding, and the Congressmen of the district, were out to look over the ground in connection with the improvements which it is desirable to make. This has come to be more urgent from the fact that for some reason the work on the breakwater for which Congress appropriated $8,000 has been delayed until it is feared the breakwater will not be completed this fall. This, when finished, will consist of two rows of piles three feet apart, to extend from the north end of the ground 180 feet into the lake, thence 530 feet to the south end of the ground. This amount of land has been washed into the lake since the hospital was established in 1872. Heavy storms also drive the waves over the slight embankment at the edge of the shore, causing a small lake to form inside, which reaches nearly to the building, and is having a bad effect on its foundation, causing the building to settle on that side. On account of these dangers the hospital authorities are very anxious to have the breakwater completed before the fall storms, as those of last year washed away twenty feet of the beach, leaving it in a prime condition for the lake to continue its work this season.

Another object had in view by this party of visitors was to get at the cost of improving the grounds, which have remained in their original sandhills, with the exception that they are worse, owing to the holes dug in the construction of the building. Along the south side the sand is said to be drifted nearly to the height of the fence at present, and on the advent of a southeast wind the drifts are sifted over the grounds after a fashion that makes life miserable. It was estimated that by an appropriation of $15,000 the grounds could be laid out in a tasty manner, with $3,000 remaining for the planting of trees.

It would seem therefore that an effort for the much needed protection and improvement of the hospital grounds will soon be made.

Subscribe for the MARINE RECORD.

CHANGES IN THE NAMES OF VESSELS.

The Commissioner of Navigation has issued a circular in regard to changes in names of vessels of the United States mercantile marine. The owner of any vessel of the United States, desiring to have her name changed must make sworn application to the Commissioner of Navigation, through the chief officer of customs at the home port, specifying, without abbreviation, the old name and the new name desired, giving in full the reasons for the proposed change, and submitting satisfactory evidence of the seaworthy condition of the vessel, of her freedom from debt, and of the time and place of her building.

A duplicate of the current certificate of inspection from the local inspectors of steam vessels will be accepted as sufficient evidence of seaworthiness of a steam vessel. In the case of a sailing vessel, the owner must procure and present a certificate as to her seaworthiness from the inspector of hulls for the district in which she is at the time of the application, unless this requirement be specially waived by the commissioners. Inspectors of hulls are authorized to make examination of sailing vessels and to certify as to their seaworthiness. All expenses incurred for this service are to be paid by the owners.

Satisfactorily to establish the freedom of a vessel from debt the owner must, in addition to his sworn statement, produce such a certificate as is provided for in section 4 194 of the Revised Statutes, setting forth that the official records at the home port of the vessel show no mortgage, hypothecation or other evidence of indebtedness outstanding against her.

The statement in regard to the time and place of building contained in the last marine documents of the vessel will be accepted as satisfactory evidence on these points.

In the case of steam vessels the new name authorized should be indorsed on the certificate of inspectors in force.

Application for change of name of vessels over twenty years old will be rejected, and such change will not be authorized in the case of vessels over ten years old unless repairs have been made equalling 40 per cent. of the first cost of the vessel, nor in the case of vessels fifteen years old unless such repairs shall have been made equalling 60 per cent. of the first cost of the vessel.

No change will be authorized of the name of a steam vessel in which the boilers are more than ten years old.

For the purpose of the act first above cited the word "enrolled," as contained therein, is held to be equivalent to "documented," and the word "register" to "documenting."—*Maritime Register.*

LARGE DOCKS AT ASHLAND.

The Ashland, Wis., Press has the following concerning Lester J. Barr, formerly of Erie. Mr. L. J. Barr, superintendent of the Milwaukee, Lake Shore and Western Railroad Company's ore docks, arrived in this city on Tuesday evening to take charge of the work of letting the contracts and building the ore docks in Ashland. Through the courtesy extended by Superintendent Rummele and Mr. Barr, we have been permitted to examine the plans and specifications of the immense structure, which is not only the largest on the great chain of lakes, but probably the largest ore dock in the world.

Its extreme length over all will be 1,400 feet It will be 46 feet wide and 40 feet high. There will be 234 pockets, with a capacity for 25,000 tons of ore. It is estimated that a vessel can be loaded in four hours.

The material used in the docks is to be first-class in every particular. A new patent hoisting gear and steel spouts will be used. The superstructure will rest upon 7,000 piles, forming a dock basin, which will be filled solid from the bottom of the harbor to nineteen inches above high water mark. The dock will draw twenty feet of water, sufficient to load any vessel that can ever enter the lake. The contract will be let on the 24th of September.

The work will be commenced at once and continued throughout the winter, and will give employment to a large number of men. The docks are estimated to cost in the neighborhood of $300,000.

WATERING OLD STOCK.

There is an old canal down in Indiana whose stock for the last ten years has had neither quotation nor buyers. The other day a boat passed over it, for the first time in two years, bearing the President and other officials. There was great excitement along the ditch, and at one point an explanation was demanded.

"Well, this means that the canal company is about to issue a new stock to the amount of $100,000," replied the President.

"You don't say and! And what for?',

"To raise money."

"But you can't sell the whole issue for over $1,000."

"Don't expect to, my friend. We'll be satisfied with $500!" replied the great financier; as the boat moved on through the mud. —*Wall Street News.*

$66 a week at home. $5.00 outfit free. Pay absolutely sure. No risk. Capital not required. Reader, if you want business at which persons of either sex, young or old, can make great pay all the time they work, with absolute certainty, write for particulars to H. HALLETT & CO., Portland, Maine.

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION

New Orleans.

Opening December 1, 1884; Closing May 31, 1885.

—UNDER THE AUSPICES OF THE—

United States Government.

$1,300,000,
Appropriated by the General Government.

$500,000,
Contributed by the Citizens of New Orleans.

$200,000,
Appropriated by Mexico.

$100,000,
Appropriated by the State of Louisiana.

$100,000,
Appropriated by the City of New Orleans.

From $5000 to $25,000,
Appropriated by Innumerable States, Cities and Foreign Countries.

Every State and Territory in the Union represented, and nearly all the Leading Nations and Countries of the World.

The Biggest Exhibit, the Biggest Building and the Biggest Industrial Event in the World's History.

APPLICATIONS FOR EXHIBITS ALREADY RECEIVED COVER MORE SPACE AND A GREATER VARIETY OF SUBJECTS THAN THOSE OF ANY EXPOSITION EVER HELD.

The cheapest rates of travel ever known in the annals of transportation secured for the people everywhere.

For information, address
E. A. BURKE,
Director General, W. I. & C. C. E.,
NEW ORLEANS, LA.

TRAVELERS' REGISTER.

LAKE SHORE & MICHIGAN SOUTHERN.

Commencing Sunday, May 11, 1884, at 12 o'clock noon the time given in the figures below is the new standard (Nintieth meridian) time, which is thirty-three minutes slower than Cleveland time proper:

Eastward.	Arrive	Depart.
No 4, Fast Limited Express	*1 10 A M	*12 05 A M
No 8, N Y, B & A Express	*6 35 A M	*7 00 A M
No 26, Elyria Accommodation	†8 05 A M	
No 35, Buffalo Ac'm via Sandusky	†10 35 A M	†10 50 A M
No 35, Toledo Accom via Norwalk	†10 35 A M	†10 50 A M
No 12, N Y & B Fast Express	*1 55 P M	*2 25 P M
No 14, Special N Y & Bos Expres		5 00 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 42 P M	
No 26, Conneaut Accommodation	†4 25 P M	

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	*11 55 A M	*12 05 A M
No 23, Mich Express via Sandusky	*2 15 A M	*2 35 A M
No 3, Chicago Express via "	‡6 05 A M	6 30 A M
No 25, Mich Accom Norwalk		†6 10 A M
No 21, Toledo Ex via Norwalk	†12 55 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	†12 15 P M	12 40 P M
No 9, Chi Pac Fx via Norwalk	*6 06 P M	*6 30 P M
No 31, Elyria ac to Elyria only		†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	

Sunday train for Nottingham—Depart 8:30 a. m. and 1:45 p. m.; returning, leave Nottingham at 9:05 a. m. and 3:45 p. m.

Reference marks—* Daily, † daily, except Sunday, ‡ daily, except Monday.

For full information as to trains and connections apply at the new city ticket office, corner Seneca and St. Clair streets, Lake Shore block.

A PRIZE. Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All, of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address TRUE & Co., Augusta, Maine.

BEE LINE

CLEVELAND, COLUMBUS, CINCINNATI & INDIANAPOLIS.

Commencing Sunday, June 8, 1884, trains of the Bee Line—Cleveland, Columbus, Cincinnati & Indianapolis Railway—will leave and arrive at Cleveland as follows, CENTRAL STANDARD TIME, 33 minutes slower than Cleveland time:

	Depart.
No. 3, Columbus, Cincinnati & Ind Ex	7:00 A M
No. 23, Galion & Wheeling Express	6:40 A M
No. 9, Col., Cin., Ind & St. Louis Ex	*6:40 P M
No. 5, Col. Cin., Ind. & St. Louis Express	*12 35 P M
No. 27, Galion & C. L & W. Acc	4:00 P M
No. 29, Massillon & Ulrichsville Ex	5.00 P M
	Arrive.
No. 8, Col, Cin, Ind. & St. Louis Exp	*6:40 A M
No. 20, Ubricsville & Massillon Ex	9:00 A M
No. 2, Col. Cin. & Indianapolis Express	9:50 P M
No. 14, St. Louis, Ind., Cin. & Col. Ex	*4:35 P M
No. 22, Galion Acc	10:00 A M
No. 26, Wheeling Accom	4:30 P M
No. 4, Col., Cin. & N. Y. Express	1:15 A M

Trains marked * daily, all other trains daily except Sunday

E. B. THOMAS, General Manager. O. B. SKINNER, Traffic Manager.
A. J. SMITH, General Passenger Agent.
CLEVELAND, OHIO.

New York, Pennsylvania & Ohio R. R.

NEW YORK, BOSTON AND THE EAST.

The Shortest and Quickest Route to Pittsburg, Washington and Baltimore and the Southeast.

Central or Ninetieth Meridien time, 33 minutes slower than Cleveland city time.

Until further notice trains will leave from the new Central Depot, South Water street and Viaduct as follows:

6.50 a. m. ATLANTIC EXPRESS—(Daily) Pullman sleeping and hotel coaches from Leavittsburgh 8:35 a. m. to New York, Albany and Boston without change. Arrive at Meadville at 10:40 a. m. (dinner) Franklin at 12:08 p. m, Oil City 12:30 p m, Corry 12.35 p. m, Jamestown (Lake Chautauqua) 1.35 p. m, Buffalo 5:50 p. m. Rochester 8:20 p. m.; Hornellsville 6:00 p m. [supper]; Corning 7:25 p. m. Elmira 8:05 p. m. Binghanton 10:05 p. m., Albany 5:00 a. m. Boston 1:45 p. m.; arriving at New York 6:15 a.m.

2:20 p. m. LIMITED EXPRESS—Through Pullman sleeping coach from Cleveland to New York. Arrives at Meadville at 6:30 p. m, Jamestown 8:47 p. m., Salamanca 9:45 p. m., New York 10:10 a. m.

11:00 p. m. NIGHT EXPRESS—(Daily except Sunday) Seeping coach from Cleveland Hornellsville. Arrive at Youngstown at 1:50 a. m., Meadville 3:25 a. m., Corry 4:59 a. m. Jamestown 5,57 a. m, Buffalo 9:20 a. m., Rochester 12:58 p, m., Hornellsville, 11:00 a m., Corning 12:07 p m, Elmira 12:40 p. m., Binghampton 2:19 p m,, New York 9:10 p. m. Arrive at Pittsburgh 5:50 a. m., without change.

2:20 p. m. PITTSBURGH EXPRESS — Daily — Through without change, Parlor car attached. Arrives at Youngstown 5:00 p m., Pittsburg 8:02 p. m., Washington 7:09 a. m., Baltimore 8:19 a. m.

4:11 p. m. MAHONING ACOMMODATION — Stopping at all way stations, arriving at Youngstown 6:55 p. m., Sharon 8:01 p. m., Sharpesville 8:10 p. m.

6:50 a. m. PITTSBURGH EXPRESS — Daily — Through without change. Arrives at Youngstown 9.30 a. m., Sharon 10:30 a. m., Sharpsville 10:40 a. m., Pittsburgh 12 45 p m., Returning, leaves Pittsburgh at 4:15 a. m., 7:45 a. m., 12:55 p. m., and 3:45 p. m.

10 35 a. m. YOUNGSTOWN AND PITTSBURGH ACOMMODATION—Stopping at all Way stations, arriving at Youngstown 1:40 p. m., Pittsburgh, 5.45 p. m.

Trains arrive at Cleveland, 6:15 a. m., 6:30 p. m., 10.20 a. m; 1:05 p. m., and 9:45 p. m,

This is the only route by which passengers can reach Corry Elmira, Binghampton, New York City and intermediate points without change. No change to Boston and New England Cities.

Baggage checked through to all points East.

Through tickets and information regarding the route can be obtained at the office 131 Bank street, and at new Depot of N. Y., P & O R R., South Water street and Viaduct, Cleveland, O.

A. E. CLARK, Gen'l Pass'r Ag't Cleveland, O.
J. M FERRIS, Gen'l Man'gr, Cleveland, O.
M. L, FOUTS, Passenger Agt, 131 Bank St. Cleveland.

The Nickel Plate!

NEW YORK, CHICAGO & ST. LOUIS RAILWAY.

The passenger equipment of this New Trunk Line is all new and is supplied with the latest appliances necessary to safe speedy and comfortable travel.

At Chicago, passenger trains arrive at and leave from the Union Depot, Van Buren street.

Following is the time in effect June 1. 1884, and until further notice:

GOING EAST.

Lv. Chicago	7.50 a. m.			
Arr. Valparaiso	9.45 "			
" Fort Wayne.	1.50 p. m.			
" New Haven	2.05 "			
" West Leipsic	3.56 "			
" Arcadia	4.49 "			
" Fostoria	5.00 "		6.50 a. m.	
" Green Springs	5.45 "		7.35 "	
" Bellevue				
Lv. Bellevue	6.20 "		8.15 "	
Ar. Lorain				Accom.
Arr Cleveland	9.02 "		10.49 "	
Arr Painesville			12.05 "	
" Ashtabula			12.58 p. m.	
" Conneaut			1.42 "	
" Erie			2.41 "	
" Dunkirk			4.19 "	
" Buffalo			5.55 "	

GOING WEST.

Lv Buffalo	9.50 a. m.		
Arr Dunkirk	11.24 "		
" Erie	1.23 p. m.		
" Conneaut	2.20 "		
" Ashtabula	2.51 "		
" Painesville	3.44 "		
Lv Cleveland	5.01 "	6.45 a. m.	
Ar Lorain			
Arr Bellevue	7.35 "	9.10 "	
Lv Bellevue		"	
" Green Springs		9.44 "	
" Fostoria		10.22 "	
" Arcadia		10 34 "	
" West Leipsic		11.30 "	
" New Haven		1 35 p. m.	
" Fort Wayne		1.50 "	
" Valpraiso		5.42 "	
" Chicago		7.50 "	

Through tickets to all points are on sale at principal offices of the company at LOWEST RATES for any class of tickets desired. Baggage checked to destination

For information, call on nearest agent of the Company, or address

B. F. HORNER, Gen'l Passenger Agent,
LEWIS WILLIAMS, General Manager. Cleveland, O.

The Marine Record.

Published Every Thursday at 144 Superior Street, [Leader Building.]

A. A. POMEROY, Editor and Proprietor.

TERMS OF SUBSCRIPTION:

One year, postage paid.....$2.00
Six months, postage paid..... 1.00
Invariably in advance.

Subscriptions will be continued until ordered stopped by a written order, or at the publication office.

The MARINE RECORD can be found for sale by the following news dealers.:

CLEVELAND, OHIO—G F Bowman, corner of Pearl and Detroit, streets.

CHICAGO, ILL.—Joseph Gray, No. 9 West Randolph street.

BUFFALO, N. Y.—C. Rollmer, Michigan street Swing Bridge.

DULUTH, MINN.—C. F. Johnson, 117 West Superior street.

SARNIA, ONT.—D. M. McMaster & Co.
ESCANABA, MICH.—William Godley.
MANISTEE, MICH.—J. E. Somerville.

Articles, letters and queries on all subjects are solicited.

ADVERTISING RATES.

Ten cents per line, nonpareil measurement, or $1.20 per inch, each insertion; four weeks $4.00; with a liberal discount on orders amounting to $40.00 or over.

All checks and drafts should be drawn to the order of A. A. Pomeroy.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, OHIO, THURSDAY, OCTOBER 16.

ASHLAND AS A SHIPPING POINT.

Although the ore farms near Ashland, Wis. have not yet been developed, sufficient is known regarding their extent and the quality of the ore, to warrant us in saying that they are of immense value to commerce, and that Ashland, as a shipping port will soon become important, and, to that end the Milwaukee, Lake Shore & Western railway has let a contract for the building of their ore docks at that place, which will be the largest ore docks on the lakes, consequently the largest in the world. The extreme length of the docks over all will be 1400 feet and they will be forty-six feet wide and forty feet high, containing 234 pockets with a capacity for 25,000 tons of ore. The contract for building these extensive ore decks has been secured by Mr. C. C. Smith of La Cross, Wis., who has commenced work, the contract calling for their completion in July, 1885. Said docks will be located in twenty feet of water, which will permit access to them by the largest vessels that can get into Lake Superior.

The above mentioned railway will be finished to Ashland by the first of June, next, and the Northern Pacific will be completed at Ashland, (from Superior City) sixty miles, by the first of December, inst.; in fact twenty-seven miles of the sixty have already been ironed, and the grading and bridge work on the remaining thirty-three miles nearly finished. This will make four railroad's terminating at Ashland by July, 1885. The Wisconsin Central has located a railroad to run parallel with the Iron Range from Penokee a point on their main line thirty miles southeast of Ashland, running east from Penokee, sixty miles, with which to transport iron ore to Ashland, from their own mines, which have been developed with good measure of success during the past year. With all these new sources of supply, or feeders for lake navigation, opening up to view, and a good demand for the produce of the mines and fields of the Lake Superior region in perspective, the outlook of the marine interest next year is not so gloomy as it has been during the present season, especially as our agricultural and mining resources are very attractive fields for the employment of both labor and capital and will be worked to their full capacity. Indeed it is the intention of owners of one of the ranges referred to to bring down a cargo of this ore the present season, not from Ashland however, to analyze and experiment with in order to be able to act with confidence and dispatch early next season. The fact that Washburne and Bayfield are both good coal receiving points makes the certainty of getting up cargoes for a great number of our carriers assured.

THE OCTOBER GALES.

The recent gales throughout the lake region have been short, though spiteful, and the number of casualties have been much less thus far than in former years. In short, the month of October is not to be included as notable for heavy gales, and, as our readers have already been informed, that of 1848 is without a precedent. A very severe storm passed over the lakes in October, 1838, yet the loss of life and property was by no means as destructive as in the former year. In the gale of 1838, there are many yet living who will remember the loss of the fine brig Manhattan, wrecked near Point Abino, on Lake Erie; and at various other points the loss was very severe. That of 1844 was far more destructive on all the lakes, and notably so at Buffalo. The west side of the harbor at that port was without any protection whatever, and with the sudden rise of water, made a clean sweep of everything portable. Residences, with their inmates, were swept out into the lake. Upward of thirty houses were washed away, and over fifty lives lost. Steamers and vessels were driven high and dry into some of the principle streets and the destauction of property was upward of half a million dollars.

THE Liverpool, England, Cotton Circular in a recent issue has the following pertinent comment on the effect of the United States tariff laws: "This country has suffered severely of late years from the increasing stringency of foreign tariffs. There has been a growing tendency evinced in most countries to protect their own industries, and in every such case we are the chief sufferers, for we live, as already said, by exchanging our manufactures for necessaries of life. The United States was at one time a large customer for our iron ware and textile fabrics; but the hostile tariff she has enforced since the civil war has nearly driven us out of her market, and has built up a vast system of manufactures, which completely supplies her own wants and leaves something to spare to compete with us in foreign markets. The fact is that their market is almost lost to us, and we, on the other hand, are constantly more dependent upon her food and raw material. For this we have no means of paying except by money or bonds, or indirectly by our credit with China, Brazil, etc. Our colonies all follow in the wake of the United States, and do their best to stimulate their own manufactures by closing their markets against ours."

THE Bureau of Statistics has added many valuable facts and figures to the advance report of our foreign commerce for the fiscal year ending June 30, 1884. During the year the value of domestic merchandise exported was $724,964,872, and in the same period there was exported of foreign merchandise $15,548,757 making a total value of exports for the year $740,513,609, which figures exceed the value of merchandise imported, $72,815,916. This excess is about $28,000,000 below that for the preceding year and is the smallest balance in our favor during the past nine years, excepting the years 1876 and 1882.

A PETITION has been in circulation at the various lake ports, to the government lighthouse board, for the construction of a light off Grosse Point, Lake St. Clair, for the guidance of vessels entering the Detroit river, and the prevention from stranding on Peche Island. It has already the signatures of upward of 375 prominent ship owners and masters, and the importance of such a structure is almost incalculable. Heretofore there has been a temporary light, which has not proved reliable in all sorts of weather and was not properly located.

SURPRISE SHOAL.

Notice is given that Staff Commander Boulton, R. N., has reported Surprise Shoal, situated between Cape Crocker and Cabot's Head, in Georgian Bay, Ont., and consisting of boulders and rocks, with eight feet of water on it, as lying three-fourths of a mile eastward of the position assigned it on the present charts.

From the rocks the right or northwest entrance of Barrier Island (MelvilleSound) is touching the left, or southeast extremity of Cape Dundas, bearing south southwest, three-quarters west. Griffith's Island lighthouse is twice its apparent height, open northeast of Cape Crocker, bearing south southeast, one-quarter east.

OBITUARY.

Captain Marshall Capron, an old and experienced lake navigator and shipbuilder, died at his residence in Conneaut, Ohio, on Tuesday, the 7th inst., after a brief illness, at the age of 68. Captain Capron's history is well known to many of our readers and is one of peculiar interest, involving, as it does, the struggles of a poor and friendless boy to attain position and wealth, which, after having been secured and enjoyed for a time, is speedily swept away, the former by the dread destroyer, and the latter by the ever varying tides of business. From boyhood the love of a sailor's life was his one great passion, and led to its early adoption as his lifelong profession. In the fall and winter of 1831-2, in company with H. C. Walker, of this place, the schooner J. B. Skinner, 100 tons was built, and young Capron as her commander sailed proudly out of the harbor with his first vessel. In 1847 Captain Capron was appointed to the command of the brig Banner, which came out new that year, and which sailed until the year 1859, when he practically retired from active life on the lakes, but continued to build and fit out other vessels, among which was the scow Times, sixty tons, built during the winter of 1859-60. This was followed by the bark Monitor, 500 tons, in the years 1861-2, a splendid vessel in those days. The schooner Ann Maria, 450 tons, followed during 1863-4, and then the bark Valentine, 300 tons, and T. B. Rice, 300 tons in the years 1863-4. His last ventures were the schooners Conneaut, 39 tons, and M. Capron, 169 tons, built during the years 1873-5. The building of the last two proved disastrous to him financially, coming out as they did, during the years of commercial depression that followed. He struggled along with that iron will so characteristic of the man, but in 1877, through force of circumstances, was compelled to make an assignment for the benefit of his creditors. At one time he was one of the largest individual vessel owners on the lakes, and was considered to be worth fully one hundred thousand dollars. The panic of '73 had however, swept this away, leaving him but little for declining years. Captain Capron was a man of large heart, liberal and very kind in disposition, a man of very decided views and set in his ways. Perfectly honest and straightforward, he won the esteem and confidence of all with whom he came in contact during his business life. He was an ardent Mason and Knights Templar. The funeral services, which took place on the 12th inst., were conducted by the Masonic fraternity, and his remains interred in Center cemetery at Conneaut.

ABOUT PROPELLERS.

Editor of the Marine Record:

A correspondent in your last issue, over the signature of "Chip," makes some extraordinary statements about screw propellers. If he will give the origin of the law he has discovered, or upon what fact it is based, he will oblige me, and doubtless, other engineers. I have had some familiarity with this propelling instrument in the last thirty years but would be glad to know more. HELIX.

A HORSE'S power, in machinery, as a measure of force, is estimated equal to the raising of 33,000 pounds over a single pulley one foot a minute, which is equal to 550 pounds raised one foot a second or 1,000 pounds raised 33 feet a minute.

CHANGEOF LIGHTS.

Notice is given that the description of Cherry Island light in Lake St. Francis, river St. Lawrence, published in the "List of Lights" (No. 145,) must be changed, in consequence of a new lighthouse apparatus having been erected last winter. Latitude, 45° 8' north; longitude, 74° 22' west. The light is fixed white, elevated forty-three feet above the water mark, and should be seen eleven miles all around the horizon. The illuminating apparatus is dioptric of the sixth order. The tower is a hexagonal wooden building, forty-one feet high from its base to the lantern vane, and is painted white, with the lantern red.

By order of Lighthouse Inspector N. M. Dyer, tenth district, the white lantern light heretofore exhibited at the east end of Cleveland breakwater will, for the future, be displayed from a mast on the crib, about forty feet inside of its former position.

SCIENCE APPLIED TO SHIPBUILDING.

LOCKPORT, N. Y., October 11.

Editor of the Marine Record.

I notice a reprint of one of my contributions to the American Aquatic Magazine, in your issue of the 2d inst. I also notice, in your issue of the 9th inst., sarcastic comments made by a person signing himself "Chip." I have been writing and publishing on points and principles of safety for a sea-going vessel for over thirty years, and hold myself open to meet any arguments that may be advanced against the points I raise. In fact, I solicit them. But such comments as Chip's do not furnish arguments or give information, and, of course, there is nothing to meet. But some of the questions that he asks are pertinent, and it may be beneficial to answer them. In one he says: "For are not all our shipbuilder groping in the darkness of ignorance for want of light from those known principles of science?" I answer, yes, they are. One would naturally infer, by reading Chip's letter, that he was "up" in naval architecture, and that it was, according to his idea, a science. But I will say for his information that there is no such science, and the best that can be said for the shipbuilders is, that they are experts, and of the system, that it is a craft. At one age astrology was considered to be a science, and one of the highest order, notwithstanding no science was then in existence. But light has been thrown on it by known science, and it has dissolved the dogma. This celebrated science of naval architecture has been practiced the same as it now is from the earliest times, and known science has had nothing more to do with it than it had with astrology. But when it takes it in charge it will dissolve it, as it did the other. Some shipbuilders have learned their craft by having been apprenticed to it, as I was myself, in my youth, or theoretically, by reading such works as Scott Russell's,* now a standard. But he says, in closing up one of his works, "That some people believe that naval architecture can be reduced to science, but that is not so. But if it was possible to be so, a person possessed of a fine mathematical mind could be far better employed than in a shipyard." The most positive proof that it is not a science is, that there are no classical works on it, nor is it taught in any of our schools. Scientists of known science know that the motions and forces of the ocean are caused by natural laws, and are disturbed equilibrium. They also know that there are other counter laws which restore the equilibrium, or obviate its force. The little vessel that I have described has in her form the last mentioned natural law. There are no miracles in her motions and powers, nor have any of the motions and forces to be suspended. My article alluded to by Chip is plain common sense, and the description of the performances of the Future are to the point, and plain to be understood, and can be proved in the clearest manner. There is no one thing better known by the public than that the form of a vessel has been for ages back constantly mooted; also that no two from different builders are alike; also that not far from three thousand are annually wrecked, and about three hundred are never heard from in the same length of time, and no one knows what has become of them. Sometimes persons are picked up at sea, and from them we learn in what manner their vessel foundered. Two such cases in the last past summer are reported. The last one, the sad story told and illustrated in the New York Graphic, of September 30th, of the lost yacht Mignonette, which foundered in mid-ocean on July 5th. If Chip would read that account it would afford him an opportunity to illustrate his ideas of science in her form to meet the forces of the ocean. Yacht builders are ranked as the best of experts, and there can be no doubt but this one had in her all the science that is now practiced by the craft. Buoyancy is the life of a vessel, but it can not be so unless it is so placed in the form of a vessel as to be active at all times, and in all positions that a vessel may be in, also to be so securely protected from injury that the vessel could not lose it. This was not the case with this little vessel, as she went down in five minutes after she had been injured by the blow of a wave on her side. The inmates had no time to secure provisions and water, and

saved themselves in a small, open boat, only thirteen feet long and four feet wide. We are led to suppose that it was a rough time. But here is a little, open boat, thrown into the mad waves with no time to prepare for them, into waves that had destroyed the larger vessel, and rides in them safely for twenty-four days. Why was this so? Why was the boat safer than the yacht? The answers to the questions are patent on the face of the incident. The small boat's buoyancy was intact for the size of the boat, and so located that the waves could act kindly on it, and meet no opposition. On the contrary, the yacht was loaded down with ballast, and what little buoyancy she had left was above water and fenced in by her vertical sides, and it could in no way act so as to relieve the yacht from the blow of the wave. The form of the yacht was such that, with her long deep keel and wide dead woods, it was impossible for her to move sidewise so as to yield to the force of the wave, and she was held as firmly as the anvil is to the block. It will be seen at a glance that the small boat, in life principle, was the direct opposite to the yacht. She was life, and held it from her buoyancy. The yacht, in the position she was in, was an inert thing, could get no aid from her buoyancy and had no power to help herself, and as soon as injured, sunk. If Chip will again read that part of my letter in your issue of the 2d inst. in which I point out philosophically the difference between the schooner and the Future in the passage up to Boston, and which shows the cause of the difference, he will see that science has had nothing to do in producing such vessels as the schooner.

I claim no new principles. On the contrary, I point to known principles, now dormant in the hands of scientists of known science. There is only one way to cause those principles to be brought into use, and that is for Congress to appoint a board of scientists with power to call before them the shipbuilding experts, and cause them to show how they apply science to meet the motions and forces of the ocean, and to permit others to take a negative position against them. I have been soliciting such a board, both from Congress and the Navy Department, for over twenty years. We have a National Academy of Sciences at Washington. I appealed to them, about one year ago, to take this matter into consideration. They were then in session at New Haven, Conn., but I, at the time, received no reply to my application. But later I received a letter from their home secretary, saying that their president had directed him to write to me. He advised me that they held their regular session at Washington in April. I replied to him that I would meet them and be prepared with all necessary data to prove the truth of the matter and make it clear. I caused a model to be made to explain from. (I use no model for building.) I also had sketches made and painted, both in section and perspective, showing the motions of the ocean and their effects on other vessels, also showing how my vessel prevents the effects. But in April I received the letter copied below:

NATIONAL ACADEMY OF SCIENCES,
WASHINGTON, April 23, 1884.

MR. JOSEPH NORCROSS, Lockport, N. Y.

DEAR SIR—I laid your letter before the president and council of the National Academy of Sciences, and I am directed to inform you that the Academy can take no action in the matter. The Academy respectfully refer you to the Navy Department and the Naval Advisory Board, which is organized to consider the question of building new ships for the navy.

Yours truly,
A. HALL.

The Advisory Board was formed in 1881, on my application to Mr. Hunt, Secretary of the Navy. I had sent him manuscript defining my position and asking him to appoint a board of scientists of known science, and one that could not be influenced by the naval constructors. The board was formed just before the assassination of President Garfield, but it was not composed of scientists, and I declined to meet with them. But they have now become the standard in naval matters, and Congress looks to them as its guide. The question to be settled by such a board is a simple one, and that is, if the now form of vessels are based on science, and if the now system of building is a branch of it. It is somewhat strange, if naval architecture is a branch of science, that in all the debates had on that subject professors of known science are never called upon and have never taken any part in such debates. The letter of Mr. Hall, the home secretary of the National Academy of Sciences, speaks for itself. I say, in conclusion, that no man can point out in the hulls of vessels, as now formed, any scientific principles of satety. I also say that they do exist, and that no man can disprove them; also that the points, as mentioned in your paper on the 2d inst., are also true. I have done no writing on this subject for the last two months. My health would not permit it, and I may not do any more.

Yours truly,
JOSEPH W. NORCROSS.

*The quotation is made from memory. The work was sent to me from London. It was a revised one, after the America had so badly beaten the English yachts. I have not now got it, but I feel sure that Russell was its author.

LAUNCH OF THE SS. H. S. PICKANDS.

Special to the Marine Record.

GRAND HAVEN, October 11.

The fine new steamship H. S. Pickands built by Captain Kirby, was successfully launched at his shipyard at Grand Haven shortly after 3 o'clock on Wednesday, the 8th inst. The launch was witnessed by a great concourse of people from here and abroad, and by the pupils of the public school. After the launch of the vessel an able address was delivered by Colonel Sylvester Larned, of Detroit. He eulogized the enterprising builder, Captain T. W. Kirby, who, besides the Pickands, is sole owner of nine staunch vessels plying on the chain of lakes, Colonel Larned also treated on various industries of the city, etc. Mr. Larned was attentively listened to by about 2,000 people for nearly one hour, notwithstanding the blustering cold weather. The Pickands is three-masted, full ship-rigged, with a carrying capacity of 1,200 tons. Her cost is $70,000. She will take the place of the ill-fated H. C. Akley, which foundered off Holland, November last. The dimensions of the Pickands are as follows: Length over all, 200 feet; length of keel, 175 feet; breadth of beam, 32½ feet; depth of hold 14½ feet. Her frames are white oak, got out of 6 by 7 inch fletch; depth of frame on keel 17, inches, on bilge, 15½ inches; on top 7½ inches. Her main keelson is 16 by 16 inches. She has two sister keelsons, 16 by 16 inches; two rider keelons, 12 by 14, and four floor keelsons 14 by 16 inches. She has 6-inch ceiling and 4 inch plank. A belt of iron 1½ inches thick and 8 inches wide will be laid under the sheer strake. She will have a low pressure engine Messrs. Dunham & Hoyt, ship chandlers, of Chicago furnish the fit-out, which includes the favorite Providence capstan windlass from the American Ship Windlass Co., Providence, R. I.

The H. S. Pickands will be placed in the grain and coal trade between Chicago and Buffalo, and the iron ore trade between Escanaba and Fruitport.

THE BRIDGE QUESTION.

Commissioner Cregier of Chicago is trying to interest marine men in his plans for an outer harbor, which, he believes, will altogether do away with the bridge nuisance. Mr. Cregier's idea is to build breakwaters on the lake front and dredge to the Chicago river from South Chicago. A marine man said yesterday, speaking of this matter. "For several years there has been constant warfare and clashing of interests between the lake commerce and the general public on the bridge question. Each party is unreasonable, but I believe that the public demands too much. I do believe that before two decades have elapsed the bridge nuisance will have been done away with entirely, at least so far as the bridges in the center of the city are concerned. The main river will be closed, perhaps filled. Inch by inch has the property along the main river been converted into sites for some kind of shore business. The cause of this is apparent. It has become too valuable for marine men to hold it. It is only a few years ago that there was a large number of lumber yards along this point of the river, but the centering of all kinds of other business around there made the docks too valuable to store lumber on. The principal reason why the main river can be closed up in twenty years is that the tonnage will have become so large that it will materially reduce the number of vessels, and it will be more advantageous to lighter in docks outside than to come inside. The smaller vessels carring lumber and coarse freight cargoes, of course, can go to South Chicago. This agitation on the bridge question is sure to grow as the city grows, and the greater the population of Chicago the more reason will there be for closing the bridges. The majority is bound to win in this matter, and the public, not the vessel men, are in the majority."

It might be stated right here that the supreme court has decided that Chicago river is a navigable stream of water, and the law says that navigable streams can not be obstructed.

The appropriation for the harbor of refuge Kingsville, Lake Erie, proving insufficient to complete the work, a petition for an additional grant of $40,000 has been forwarded to the Government and favorably received.

GRAND HAVEN.

On October 17th bids will be opened in Washington for the construction of a new life saving station at Grand Haven, near the end of the north pier. The work will be done at once. The present building will be moved to the new site, and completely remodeled. This will be much better for the life savers and enable them to reach a wreck in a little less time. A small house should be built on the south side and one of the surf boats kept there, as it would greatly shorten the time of reaching a wreck in that direction and lessen the danger to which the life savers are exposed.

OTTAWA.

John Page, Government engineer, is preparing estimates and plans for raising the banks of the Welland Canal two feet. This will allow large steamers of the United States and Canadian fleet plying on the upper lakes to pass through the canal without unloading part of their freight at Port Colborne and proceed as far as Kingston by the St. Lawrence route. At this point the cargo will be unloaded and placed on barges and taken to Montreal. This change will give an impetus to the shipping trade both by the St. Lawrence and Erie routes.

COLLINGWOOD.

The news reached here yesterday of the wreck of the Canadian propellor Georgian. During a heavy blow last Sunday she struck a rock and commenced to fill. In order to save his vessel from becoming a total loss the captain ran her on the beach between Little Current and Killarney in Georgian Bay. She immediately filled and sank. Both crew and passengers are safe. The cargo will be badly damaged. Hopes are entertained that the boat may be saved, but the unfavorable condition of the weather is liable to prove disastrous to her.

The Georgian belongs to Graham's Lake Superior Line. She measures 318 tons, and is valued at $18,000.

KINGSTON.

The steambarge Pratt, which arrived here Friday night with deals, met with an accident on the way down. She had run but a short distance past Detroit when she blew the piston through the cylinder head, and had to be taken into Windsor for repairs. At the time she had the schooner Edward Blake in tow, which hoisted canvas and sailed down.

Captain Merriman has abandoned his search for the oak raft, said to have been lost at Chippewa Bay, and Mr. Dana, a Brockville man, is now prosecuting the work. He uses a sort of harpoon about six feet long, fitted with an iron hub which slips up and down the shaft. When the harpoon strikes the timber the hub is used to keep the dart securely fastened and the log is then pulled up.

In entering the bridge at Stone Bridge, Port Colborne, the schooner Westside sheered off, and before the tug could check her she collided with the structure and knocked it off its pivot and did considerable damage to it. The vessel also completely wrecked herself. Her foremast was cut off close to the deck, and the spar, taken about ten feet, went down through the deck. The mainmast was also broken near the deck. Both topmasts and her stem were badly injured. She will receive repairs at Buffalo.

The captain of the propeller Persia reports the passenger business to have been unusually good this season, it being 20 per cent. better than last year. The Persia will make her last trip about the middle of November.

The steamer Como arrived here this afternoon in charge of the Captain Lundy, of Toronto. She is on her way to Quebec having been purchased at that place from Messrs. Cook, Jones and Innes, who have received the contract for improving the Toronto harbor.

The steamboat D. D. Calvin and consort will make one more trip this season.

PENTWATER.

The schooner Kitty Grant, it is now feared, was lost Wednesday with all on board. She left here Tuesday at 11 p. m. for Chicago with a cargo of shingles. On the evening of the 11th a Muskegon tug had a wrecked vessel in tow off Stoney Creek twenty miles south of here, supposed to be the Grant, but the tug's line parted and she left the vessel, which was bottom up. The crew of the Grant were Captain Davis, John Cook, Warren Cook, and Fred Houghton, all of this place.

CHICAGO.

Special to the Marine Record.

The schooner E. J. McVea had a rough experience on this lake on the 9th, and her crew were compelled to throw overboard about $2,000 worth of her cargo to prevent her from foundering. After the sea had been running for a short time the waves began to break aboard of the McVea, keeping her decks to and retarding her headway. In order to relieve the vessel about thirty tons of pig iron were thrown overboard, and for awhile she went along all right. As the seas grew larger and stronger they began to get aboard again, and twenty tons more iron were sent to the bottom of the lake. This relieved the vessel so much that she went along admirably afterward.

The schooner Tempest was badly damaged in the heavy gale last week in tow of the tug Annie L. Smith and when just outside the harbor her tow line broke and she drifted down upon the schooner Arendal, which was at anchor riding out the storm. The Tempest's mizzen mast and main topmast were carried away and her stern was completely smashed. The tugs Bob Teed and Alpha brought her into port. The Arendal did not get much damage, only carrying away her jibboom and some headgear.

The schooner North Cape grain laden was driven back by the gale; she lost her maintopsail and two jibs and her cargo was shifted. The barge Schuylkill came in with some of her bulwarks gone. The schooner Annie Thorine lost part of her deckload as did also the schooner Magdalena and S. H. Johnson. Several other vessels arrived minus some of their sails.

J. O. Rogers, chief engineer of the Union Steamboat Company, has invented an indicator, which, when placed on the top of a ship's pilot house, will indicate every movement of her engine. The indicator is worked by a pump three inches in diameter, seven inches stroke, attached to the main engine. One of the indicators has been placed on the propeller Avon, and Captain Phelps pronounces it a great success, and says it never fails to indicate correctly.

Captain Comstock was compelled to jettison a portion of the schooner E. J. McVea's deck load of pig iron, during the gale last week, to save her from foundering. She was bound to this port from Leland.

Rates were quoted at 1½ cents on corn and 1¾ cents on wheat to Buffalo, and 1½ cents on corn to Port Huron and Midland.

At the Chicago Drydock Company's yard the schooner Ainsden was in drydock and had a leak stopped, the schooner Penokee got some new plank in her bottom, schooner F. L. Danforth got some repairs, schooner Cape Horn had a leak stopped, the schooner Jessie Phillips got some calking, schooner Lake Forest had her deck calked, schooner Hattie Huff had a new foreboom.

The steamship Australasia left this port for Buffalo, last Friday night, laden with 50,000 bushels of oats and 60,000 bushels of corn. She was detained here one week, getting her cargo, and could have carried some 6,000 bushels more could she have obtained them.

A bill of sale conveying the yacht Wasp to John B. Lyon for $1,000, was filed in the custom house. The conveyor was Captain John Prindiville, who built the Wasp two years ago. She is the handsomest, as well as the fastest yacht ever built on the upper lakes. Her model was drawn by Captain John Townsend, with a view to making seaworthy as well as fast. T. W.

The master of a vessel which arrived at Chicago during the height of the blow of the 8th inst. made some interesting experiments with oil during that boisterous day. He says he took a quantity of common lard oil and allowed it to drop over the weather quarter, and while the oil lasted not a sea broke over the vessel. Monstrous waves would rush toward the vessel with terrific force, gathering height and volume as they proceeded, and it seemed as if the vessel could not escape them. But when they reached the oil they seemed to lose their force, and instead of breaking ended in long, rolling billows. The motion of the vessel was rendered easier. There was none of the fierce pitching, rolling, and driving which is usually the result of a big sea. It would seem that if this matter was more thoroughly studied it would result in saving many vessels from foundering.—*Inter Ocean.*

DEATH OF JERRY McAULEY.

Special Correspondence Marine Record.

NEW YORK, October 6.

In my last letter I gave a sketch of Captain "Bully" Waterman, who died in San Francisco, and now I am again called upon to do my duty as a marine journalist and chronicle the death of one who was a friend to seamen. Jerry McAuley died on the 19th ult., after devoting the last dozen years of his life, with ardent and tireless zeal, to rescuing the perishing thousands of mankind who are roaming this great metropolis. To begin at the beginning, he was the son of a gambler, born in Ireland forty-five years ago. When only thirteen years of age he arrived in this city, and shortly afterward began a career of crime which finally ended in his being sent to the state prison at Sing Sing, N. Y., for fifteen years at hard labor, for highway robbery. Just previous to this he had won the reputation of being a notorious river pirate and the terror of the fourth ward, in which he lived. Stealing from ships and robbing "poor Jack" were then his two specialties, and continued to be such until he was banished to that living tomb where many a poor wretch has died without even a friendly hand to wipe the death sweat from the outcast's brow, and where Jerry sowed the seeds of consumption which carried him off, after laboring twelve long years among the poor and unfortunate of Gotham. After half his sentence had been served he was converted through the instrumentality of one who was looked upon as the wickedest man in America, Orville Gardner, better known as "Awful" Gardner, because of his profanity and evil character. Some wealthy gentlemen—among them A. S. Hatch, since president of the New York Stock Exchange, a man who commenced life a sailor before the mast with Henry George, the well known political economist and author of "Progress and Poverty"—hearing of the reformation of so bad a man as McAuley had been, petitioned Governor Morgan to pardon him, and the request being granted, Jerry stepped out into the pure air of liberty a free man and a citizen with a vow upon his lips that if God spared his life he would work in the vineyard for the sake of Him who once trod the Sea of Galilee as though it had been a floor, and how nobly and how faithfully he has toiled at the oar of evangelism for the Great Captain and Master the world now knows. His soul has soared aloft and the glad and welcome words came to him as he lay dying, "Well done good and faithful servant; enter thou into the joy of thy Lord." Jerry McAuley is dead, but the memory of his grand and noble life will live till the last sound of that inspired hymn, "Rock of Ages," has died away from earth. A motley assemblage of ten thousand men and women looked upon his dead face as he lay in state at the Broadway tabernacle. Many a bronzed and weather-beaten mariner kissed the damp and stony brow of the man who had been more than a brother to them, and there are thousands of sailors scattered throughout the land and sea who will mourn the loss of this true ambassador of Heaven. The world has never seen or known a more courageous christian soldier than the one of whom it is my painful duty to write of, dead. When I first met him, seven years ago, I was fully impressed with his great earnestness in saving those who were surely sinking into that gulf which never gives up its dead. He had a heart as big as an ox, figuratively speaking, and he was full of pure brotherly and christian love for the men who go down to the sea in ships, and hundreds of them found his bethel, at 316 Water street, a harbor of refuge where they rested in safety from the land sharks which infest that locality. Poor Jerry was born in sin and nurtured in iniquity, but, after all his erring, became a practical christian and did for this great seaport what "Father" Taylor did for Boston, rescued suffering seamen from the curse of intemperance and licentiousness to which they were bound with chains, as of steel. His place will be hard to fill, but it is hoped that among the thousands whom he has helped to lead righteous lives there may be one Elisha on whom shall fall the mantle of this Elijah. Many a dying thief has cried "Lord, remember me!" but none ever appealed more fervently than did he who has done so much restitution for the past, and it is hardly likely that there will ever be another Jerry McAuley. There was only one Richard H. Dana, (author of "Two Years Before the Mast;") there was only one Peter Cooper, (founder of the Cooper Institute, New York;) there was only one Howard, the famed prison philanthropist, and it is hardly within the probabilities of human events that there will ever be another ex-prize fighter and criminal to become an evangelist and preach to the masses as McAuley only could. I can not say too much in praise of this wonderful example of divine grace, because the half of his good deeds were never told. It is, perhaps, because he has suffered himself the pangs of hunger and cold, and been in prison and visited not, that his heart yearned for his fellows, but particularly because he wished to repent and atone for the past that he worked his life out for others. He died childless and leaving litle of this world's goods, but an example of christian heroism never to be forgotten.

G. FOSTER HOWELL.

WORKING A WRECK.

Standing among the huge boulders which lie strewn along the beach under the variegated clay-cliffs of Gay Head and looking out upon the heaving and sighing billows which swell up from the Atlantic, four buoys may be seen tossing upon the ever-moving surface of the waters, less than a mile distant. An uncouth-looking craft lies at anchor and two or three small boats are riding the waves near by. On the shore against the foot of the cliffs a rude mass covered with a tarpaulin attracts attention. A rough board bearing the legend; "Nitro-glycerine! Explosive! Danger!" tells the tale of the work going on in the water. The buoys mark the spot where the steamer City of Columbus on that cold January night went surging upon the reef of the Devil's Bridge and sent 116 human beings to a grave beneath the water. The lumbering craft, with its derrick and tackling, is the lighter from which the divers ply their hazardous work upon the wreck in the depths of the waters beneath. Before the wintry blasts again beat upon this isolated and solitary promontory nothing will be left to tell the tale of that dreadful disaster.

Falling into conversation with a weather-beaten and battered old salt, who had just pulled up on the shore, the story of the wreck since it first crashed upon the reef was soon told. After all hope of rescuing at least one of the 116 human beings on board unaccounted for had been abandoned, the vessel, which had lodged in the apex of the reef, which forms an inverted V, the base abutting on Gay Head, was left to the pitiless waves which came roaring in from the ocean. Her iron sides had withstood the pounding of the breakers. The cupidity of fearless men now came to account. For the small sum of $700 the vessel which had cost thousands to build, was bartered off to a company of wreckers, who are now at work blowing the hull to pieces and bringing the material to the surface, to be sold for scrap to the rolling mills or to stock the junk shop.

"We expect to clear $10,000 out of our bargain," said the amphibious salt. Judging from the immense torn and ragged sheets of iron which once formed the sides of the Columbus, and are now strewn about one of the wharves of Vineyard haven, on this island, to be shipped away at some convenient opportunity, the enterprising adventurers will not be disappointed.

The old salt explained that the piping and copper and brass had already been taken up and shipped to Boston, and the sides of the vessel had been recovered, leaving nothing but the bottom and the boilers and engines to be lifted. The process of shattering the compact structure of the vessel is an emphatic illustration of the force of modern explosives. The diver in his armor takes with him to the wreck below a harmless-looking board, to which are fastened two apparently equally harmless cylindrical packages, about eight inches long and one and a half inches in diameter. This board is placed in such portion of the wreck as it is desired to break away. Returning to the surface a simple electric wire may be seen leading into the waves.

When all is ready a dull sound and a splash of waters are heard and in an instant the work is done. Examination reveals a detached mass and the clanking of cogs and ratchets, the groaning of the derrick and the desperate puffing of the released energy of steam soon bring to the surface what might at first be taken for some slimy monster of the deep, but proves to be an immense sheet of riveted plates of iron. This is deposited on the lighter's deck and the operation is repeated until a cargo has been raised, and then the craft steams to the nearest harbor, nearly twenty miles away.—*Martha's Vineyard Cor. Philadelphia Times.*

$25 Reward.

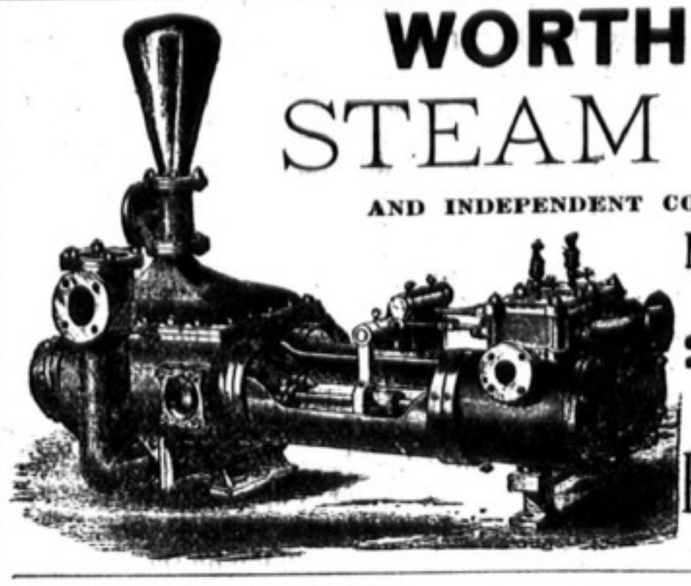
I will give the above reward for information of the vessel that run into my dock at Grosse Isle, Detroit river, on the night of July 26, 1884.

GEORGE W. ALEXANDER.

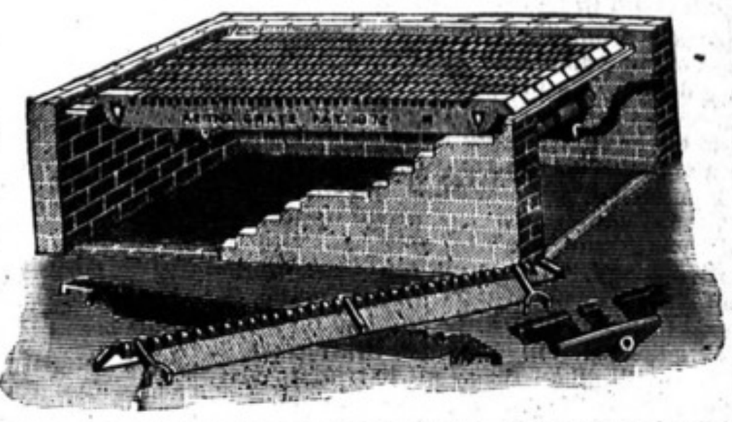
Detroit, Mich., October 7.

C. E. BENHAM,
317 Detroit Street,
KEEPS IN STOCK
A Full Line of Vessel Supplies,
Lubricating and Lamp Oils of the Best Quality,
AND A GENERAL LINE OF LAMPS, CROCKERY AND TABLE CUTLERY.
OPEN DAY AND NIGHT.
TELEPHONE NO. 1540.

WORTHINGTON
STEAM PUMPS
AND INDEPENDENT CONDENSING APPARATUS.
MAIN OFFICE, NEW YORK CITY.
BRANCH OFFICE,
225 River Street,
Cleveland, O.
E. H. JONES, Manager.
SEND FOR CATALOGUE.



THE ÆTNA GRATE.
G. C. BARNES, Agt.
This Improved Shaking Grate Especially Adapted to Burning Slack.
Globe Iron Works, Manufac's.,
Office and Foundry, corner of Elm and Spruce-sts., CLEVELAND, O.



ST. MARY'S OHIO. MONTPELIER, OHIO — OAR FACTORIES. — BRECKENRIDGE, MICH. CARROLLTON, MICH.
DE GRAUW, AYMAR & CO.,
MANUFACTURERS AND IMPORTERS OF
Cordage, Oakum and Anchors,
Wire Rope, Chains, Oars, Blocks, Buntings,
RUSSIA BOLT-ROPE, FLAGS, COTTON & FLAX DUCKS,
Marine Hardware and Ship-chandlers' Goods Generally.
34 and 35 South-st, New York.

T. E. WILSON,
SUB-MARINE DIVER.
All Kinds of Water Work
DONE PROMPTLY TO ORDER
HEADQUARTERS,
Upson & Walton's, River Street,
Or, 137 Hermann-St, Cleveland, O.

Vesselmen
SHOULD HAVE
OUR MARINE LAW BOOK,
Containing all points of MARINE LAW as determined by the United States Courts
—ON—
Seamen, Freights, Towage, Collisions, General Average, Owners, Charters, Registry, Enrollments, Common Carriers, Duties of Seamen, Masters & Owners, Bill of Lading, Wages, &c.
The volumn is handsomely bound in stiff Board covers, and fine English cloth binding. Sent to any address postage paid for $1.00.

FOR SALE,
AT
THE GLOBE IRON WORKS.
SECOND HAND TUBULAR BOILER, 44 inches diameter, 43 tubes 3 inches diameter and 12 feet long, steam drum 30 inches diameter, 40 inches high; front grates, fittings and breechings; good order.
SECOND HAND MARINE BOILER, in good order; Shell, 7-16 inch iron plate; diameter, 9 feet 6 inches. length, 18 feet; 129 tubes 4 inches in diameter, 11 feet 4 inches long, three flues 18 inches diameter; two flues 16 inches diameter, two flues 10 1-2 inches diameter; fire box, 6 feet long, 4 feet high; steam chimney, 7 feet high
SECOND HAND MARINE BOILER four feet wide, 6 1-2 feet long, 5 feet high, sixty-four 2 1-2 inch tubes 60 inches long, cast iron breeching, good as new.
SECOND HAND MARINE ENGINE; double direct-acting 8x8 inch cylinder, shaft and wheel for yacht or tug; good as new.

V. D. NICKERSON,
MARINE ARTIST
Rear of Central Tug Office, Main St. Bridge, Cleveland, O.

For Sale or Exchange,
Tug Annie Robertson.
Her length over all is 51 feet, breadth 13 feet and depth of hold 6 feet; draws 5½ feet of water; measures 9 24-100 (new) tons, and 18 24-100 old. Built in 1880 and rebuilt this spring, new deck frames and cabin, and machinery thoroughly overhauled. Engine is 14x14, boiler 8½ feet long and 4 8-12 in diameter and allowed 96 pounds of steam Warranted in No. 1 condition and subject to inspection, Price, $6,300 cash.
Inquire at MARINE RECORD OFFICE.

FOR SALE.
Quarter Interest in the large Tug Samson,
One of the most powerful tugs on the lakes. She was built at St. Catherines by Shickluna, rebuilt in 1881 and measures 181 [new] tonnage. She is straight A2, with insurance valuation of $16,000, and can be insured for $19,000. Will sell quarter for $3,400; part cash, balance on easy terms. Address MARINE RECORD.

FOR SALE
STEAMBARGE MILWAUKEE.
Her length is 135 feet, beam 26 feet, and hold. 10 feet 10 inches. Boiler 17 feet long, 7 feet diameter; three flues, two 16-inch and one 17-inch. Engine 22x42. Carries 240,000 feet of lumber. Speed, 11 miles light, and 9 1-2 loaded. Insurance valuation, $15,300. Address MARINE RECORD Office, No. 144 Superior street, Cleveland, O.

FOR SALE,
A Fine Harbor Tug.
Dimensions of hull 65 feet over all, 16 feet beam, 8 feet hold, and measures 46 tons with 7 feet draft; can be made 6 feet draft. The engine, 18x20, is in first-class condition, with all new brasses, new rings in cylinder and turns a six-foot wheel, which was new last season. The boiler is one year old, is large enough to burn wood or coal and is allowed 100 pounds of steam. Price $4,500, and must be sold inside of thirty days. Address MARINE RECORD OFFICE.

H. J. WEBB & CO.,

Ship Brokers, Vessel Owners and Agents.

[ESTABLISHED IN 1856.]

H. J. WEBB & Co., will charter Vessels for Lake Trade. Special attention given to Chartering Vessels in the Lake Superior Iron Ore Trade, both for the season and single trip.

ARCADE BUILDING 101 ST. CLAIR ST.,
Cleveland, Ohio.

TELEPHONE {Office, No. 338. Residence, No. 1328.

SCOTT & BERRIMAN.

Fire and Marine Insurance Agents and Vessel Brokers.

Attention also given to the purchase and sale of Iron Ore. Telephone, No. 18.
Office, 130 South Water-St., Cleveland, O.

THOS. WILSON

MANAGING OWNER

Wilson's Transit Line.

Gen. Forwarder. Freight and Vessel Agent.
CLEVELAND, O.

CAPT. D. M. BECKER. CAPT. HENRY BROCK

D. M. BECKER & CO.,

Commercial Brokers and Vessel Agents,

Vessels chartered, purchased and sold; contracts made for coarse and heavy freights.
Lake Superior and Escanaba iron ore charters for single trip or season a specialty.

Office, 130 Water St. Room 14. Coal & Iron Ex. Build'g. **Cleveland, O.**
Telephone No. 953.

MOORE and BARTOW,

Ship Brokers and Agents,

No. 101 St. Clair Street, Room 27.
CLEVELAND, - OHIO.

PALMER & BENHAM,

Vessel Owners & Agents,

New Bank Building, corner of Superior and Bank Street, Cleveland, Ohio.

JAMES T. ROSE,

Vessel Agent and Broker,

BOX 1616, DULUTH, MINN.

Late Gen Ag't for Collingwood Line of Steamers
Special Attention Paid to Chartering Vessels.

CAPT. J. W. MILLER. CAPT. R. B. MONTAGUE

MILLER & MONTAGUE,

DULUTH, MINN.

Vessel Brokers and Marine and Fire Insurance Agents, and Board of Trade Weighmen.

Special attention paid to Chartering Vessels; also weighing and Trimming cargoes of grain. Correspondence solicited.

ALEX McDOUGALL,

VESSEL AGENT AND BROKER,

DULUTH.

Owners and masters of vessels wishing to get cargoes of grain from this port will do well to confer with me. Will be glad to furnish information in regard to cargoes, also in relation to docks, depth of water, etc., at **Duluth, Agate Bay** (new iron ore port), **Port Arthur, Washburn, Ashland,** and all points near the west end of Lake Superior. Good gangs of men furnished on short notice for trimming cargoes of grain, loading and unloading all kinds of freight.

KNEIP & MORRISON,

PROCTORS IN ADMIRALTY,
115 Monroe St Room 54 Chicago.

ROBERT RAE,

Admiralty and Insurance Law Office,

Room 37, Merchants' building, CHICAGO, ILL.

A. M. BARNUM,

Vessel Agent and Broker,

15 Exchange St. Buffalo, N. Y.

☞IF YOU DO NOT RECEIVE MY MONTHLY LIST OF VESSELS FOR SALE, SEND FOR IT

WILLIAM FORDE,

SHIP BROKER,

Vessel & Marine Ins. Agent.

N. E. Cor. Columbus Ave. & Water St.,
SANDUSKY, OHIO,

BUTTS COAL CO.,

[LIMITED.]

Only Miners of

BUTTS CANNEL COAL,

and dealers in Gas Coals, Nut Coals and Steam Coal for Tugs, Barges, etc.

CLARK I. BUTTS,

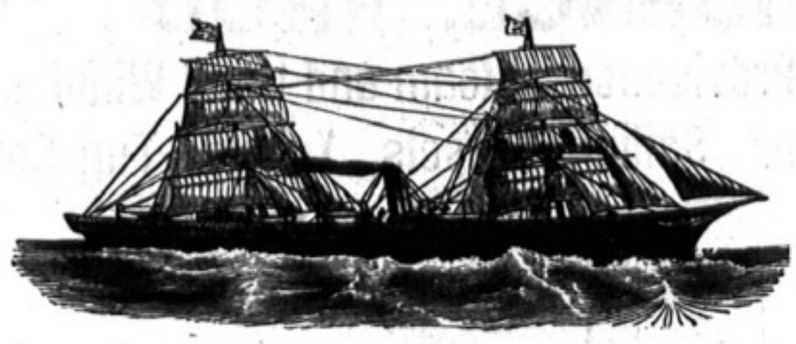
CLEVELAND, O. General Manager.

DAVID BARNHISEL, Agent.

DOMESTIC & STEAM COAL

Cleveland, Ohio

GLOBE SHIPBUILDING CO.,



Builders of Iron and Steel Vessels of every Description.

Builders of the Iron Steamers Onoko and Wm. Chisholm, Steamyacht Twilight, Iron Tugs International and Record.

OFFICE AND WORKS, OLD RIVER ST., CLEVELAND, O.

Established in 1830.

WM. WALL'S SONS,

—MANUFACTURERS OF—

CORDAGE & OAKUM.

Gangs of AMERICAN, RUSSIA and ITALIAN HEMP of the very best quality made to order AT ONE DAY'S NOTICE. MANILA and SISAL BINDER TWINE.

Office No. 113 WALL STREET, NEW YORK.

Factory, Brooklyn, N. Y.

JAMES P. DONALDSON & CO.,

Ship-chandlers, Sailmakers

AND DEALERS IN

Mill, Railway and Manufacturers' Supplies,

WOODWARD AVE., DETROIT, MICH.

DEAN & CO.,

BOAT BUILDERS.

Patent Yawl Boats of all Lengths, Pleasure and Hunting Boats, Sail and Steam Yachts on Hand.

Also, Life Boats that will pass Government Inspection, and cost less than any Life Boats in U.S.A.

DEAN & CO., FOOT OF ST. AUBIN-ST., DETROIT, MICH.

ROSEL DOWNER,

SUB-MARINE DIVER,

Sub-marine Drilling and Blasting.

STERN BEARINGS REPAIRED WITHOUT GOING TO DRYDOCK.

Wrecking Expeditions Accompanied.

Contracts Made for all Kinds of Diving

Residence, 80 East Ohio St., Chicago,

CAPTAIN DRISCOLL, CLEVELAND AGENTS.

PENFIELD BLOCK CO,

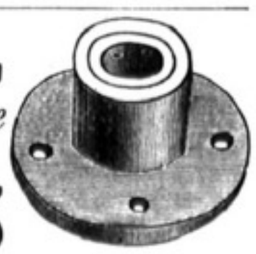
Lockport, New York, are Sole Manufacturers of the

Celebrated "Anchor Brand" Tackle Blocks,

ALL STEEL ROLLER BUSHED

OR WITH SELF-LUBRICATING

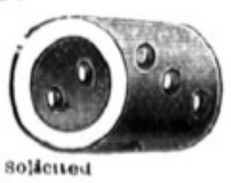
PHOSPHOR BRONZE BUSHINGS.



The metal in these Bushings is the Celebrated Phosphor-Bronze, the best bearing metal in the market, and being perfect self-lubricators they are fast superseding all other styles. For sale by SHIP CHANDLERS everywhere.

ASK FOR "ANCHOR BRAND" TACKLE BLOCKS.

The accompanying cuts represent the sleeve part, and a Phosphor-Bronze Self-Lubricating Bushing complete; the former as applied to Lignumvitæ and and the latter as applied to iron sheaves.



Illustrated Catalogue and price list mailed free on application. Sample orders solicited

The Neversink Cork Jacket

AND IMPROVED LIFE BELTS,

Warranted Twenty-four Lbs. Buoyancy

AND FULL WEIGHT OF CORK,
According to Requirements of U. S. Inspectors.

SUPERIOR TO ALL OTHERS.

ALSO RING BUOYS.

CHEAPEST.

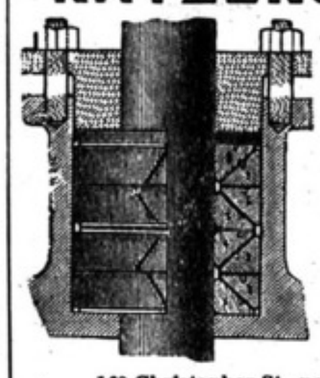
SAFEST.

Approved and adopted by the United States Board of Supervising Inspectors; also by the principal Ocean, Lake and River Steamer Lines, as the only Reliable Life Preserver.

VESSELS AND TRADE SUPPLIED.
Send for Circulars.

D. KAHNWEILER 146, 148 & 150 Worth St
Near Center St., New York.

KATZENSTEIN'S



SELF-ACTING METAL PACKING
FOR PISTON RODS, VALVE STEMS, Etc.

Adopted and in use by the principal Iron Works and Steamship Companies within the last eight years in this and Foreign countries. For full particulars and references address

L. KATZENSTEIN & CO
169 Christopher St, near West Street N. Y.
CAPT. THOS. WILSON, Cleveland agent.

N. C. PETERSON

Boat Builders,

PLEASURE BOATS AND SAILING AND STEAM YACHTS, YAWL BOATS, SPOON OARS, STEERING WHEELS, ETC.

385 Atwater st., Near Riopelle,
DETROIT, MICH.

PRESLEY & CO.,

Globe Drydock

Shipbuilding, Drydocking, Repairing and Spar Making.

CLEVELAND, OHIO.

WM. HINGSTON & SON,

Boat Builders,

Steam and Sail Yachts, Hunting, Fishing and Pleasure Boats, Shell Boats, Spoon Oars.

Foot of Porter Av., Buffalo, N.Y

W. W. LOOMIS,

Erie, Pa.,

SHIP AND BOAT BUILDING,

Fishing Tugs, Wrecking, Repairing and Pier Building with Most Improved Facilities.
All Work Guaranteed. Correspondence Solicited

FOR SALE,

New Iron Tug.

Dimensions 78 feet long, 17 feet beam, 11 feet deep; draft, 9 1-2 feet; engine, 20x20, new steel boiler 7 feet in diameter, 13 feet long, allowed 112 pounds steam. Three iron breast hooks forward, collision bulkhead forward, water tight bulkhead forward of boiler; iron coal bunkers, water tight bulkhead aft at shaft-gland, with water tight iron deck forming the floor of after cabin. Iron decks, bulwarks and deck houses; iron tow posts aft. Heavy angle iron frames, with reverse bars on alternate frames; ⅜ plate, steel floor plates; boiler, engine and bearing foundation of iron. For sale cheap when machinery can be completed by

GLOBE SHIPBUILDING CO.

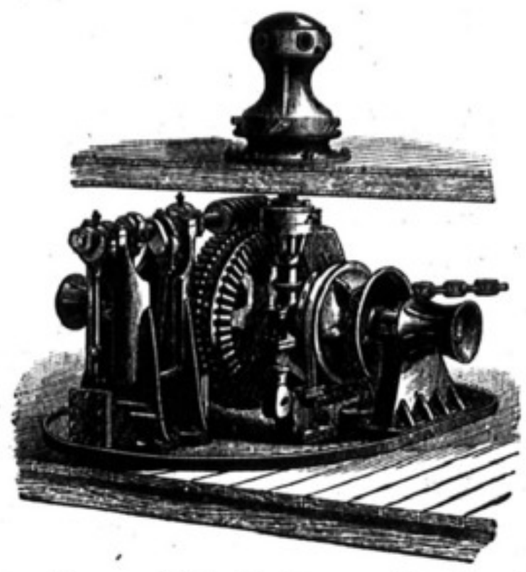
Boat washing and general laundry in a few hours. CLEVELAND STEAM LAUNDRY, 109 Water Street. Telephone 118.

AGENTS wanted for The Lives of all the Presidents of the U. S. The largest, handsomest, best book ever sold for less than twice our price. The fastest selling book in America. Immense profits to agents. All intelligent people want it. Any one can become a successful agent. Terms free. HALLETT BOOK CO., Portland, Maine

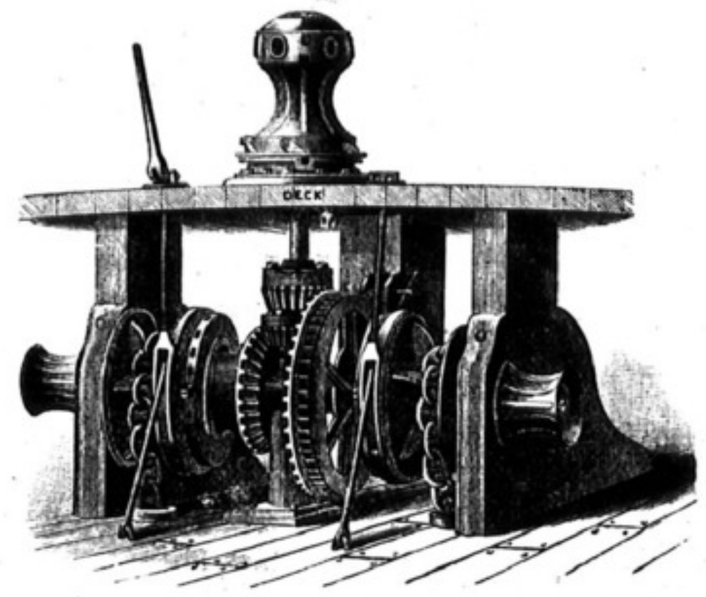
AMERICAN SHIP WINDLASS CO.,

PROVIDENCE, RHODE ISLAND,

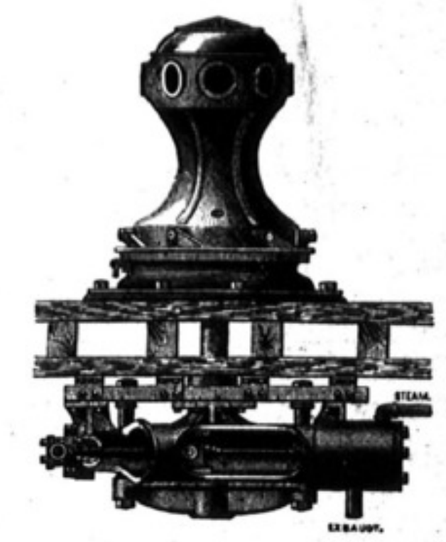
Original and only builders of the "Providence" Steam and Hand Windlasses, Steam Capstans, Crank Capstans and Power Capstans for Steam and Sailing Vessels, Yachts, Tug Boats, Wrecking Boats, Elevators, Dry Docks, Etc.



The Providence Patent Steam Capstan Windlass, New Style.

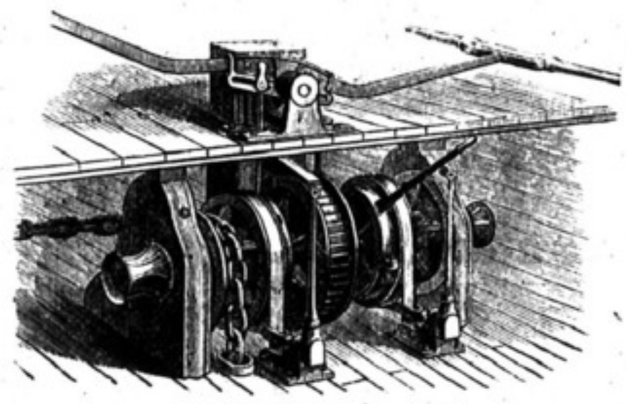


The Providence Patent Capstan Windlass.



The Providence Patent Steam Capstan.

The Providence Patent Power Capstan.



The Providence Patent Pump Brake Windlass.

The Providence Patent Crank Capstan.

SELLING AGENTS ON THE LAKES.

D. S. AUSTIN & CO.	BUFFALO, N. Y.	JAMES P. DONALDSON & CO.	DETROIT, MICH
UPSON, WALTON & CO.	CLEVELAND, O.	DUNHAM & HOIT,	CHICAGO, ILL
M. I. WILCOX.	TOLEDO, O.	G. D. NORRIS & CO.	MILWAUKEE, WIS

THE GLOBE IRON WORKS.

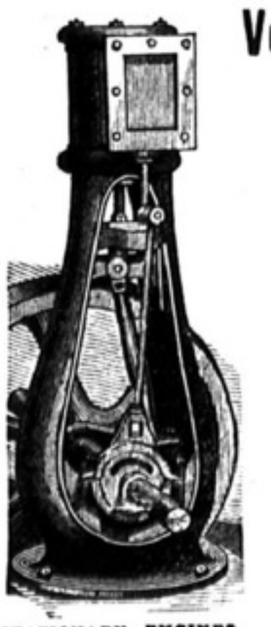
GENERAL FOUNDERS, MACHINISTS, BLACKSMITHS, BOILER MAKERS, AND IRON SHIPBUILDERS.

Office and Works, Corner of Elm and Spruce Sts., Cleveland, O.

STEAM ENGINES.

We are prepared to furnish on short notice Stationary or Marine, either High Pressure, Low Pressure, Condensing or Compound Engines, Horizontal o Vertical, with or without graduating cut off.

Vertical Engines Kept in Stock.



STATIONARY ENGINES

We keep all sizes of vertical engines in stock, which we are prepared to sell at respective prices. Stationary engine includes Governor, Throttle, Cylinder, and Oiler, Oil Cups and Waste Cocks. Marine Engine includes Link and Reverse Motion, Circular Throttle Cylinder, Oiler, Oil Cups and Waste Cocks, same as stationary,—no governor or fly wheel. Nos. 7, 8, 9 and 10, have single cranks, with separate journal when used with stationary engines.

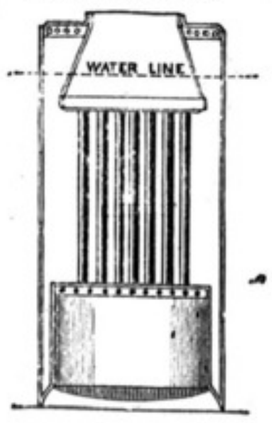
They are provided with good brass boxes in both ends of connecting rod and cross head, with best possible provision made for taking up the wear. The Cylinder, Steam Chest and lower head are cast in one piece and the frame, slides, and journals in one piece, thereby lessening liability of derangement and first cost and insuring a durable machine. The Cylinders are neatly covered with cast iron laging. Slide valve with large ports. Piston filled with good metallic packing. Material and workmanship guaranteed.

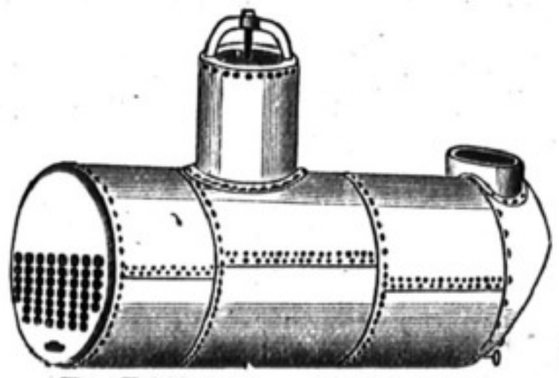
MARINE ENGINE.

BOILERS.

Having provided our new boiler works with the most approved tools for riveting by steam, planing the edges, instead of chipping, drilling, punching, shearing and bending by steam power, we feel warranted in saying we can furnish the best work for the least money in the following kinds of boilers, which we can build of either Iron or Steel: Return flue Marine Boilers, Tubular Boilers, either horizontal or vertical, Locomotive Boilers, Cylinder Boilers, Flue Boilers, Smoke Stacks and general plate Iron work.

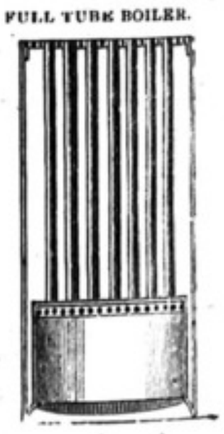
SUBMERGED TUBE



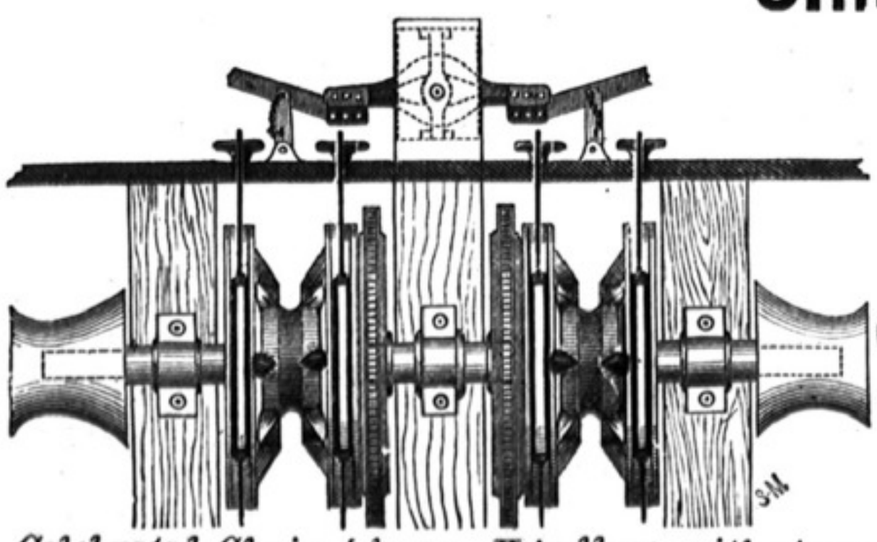


TUBULAR BOILER.

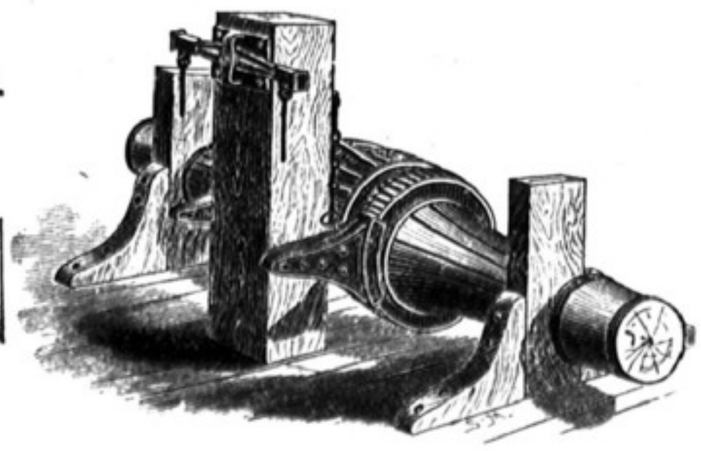
FULL TUBE BOILER.



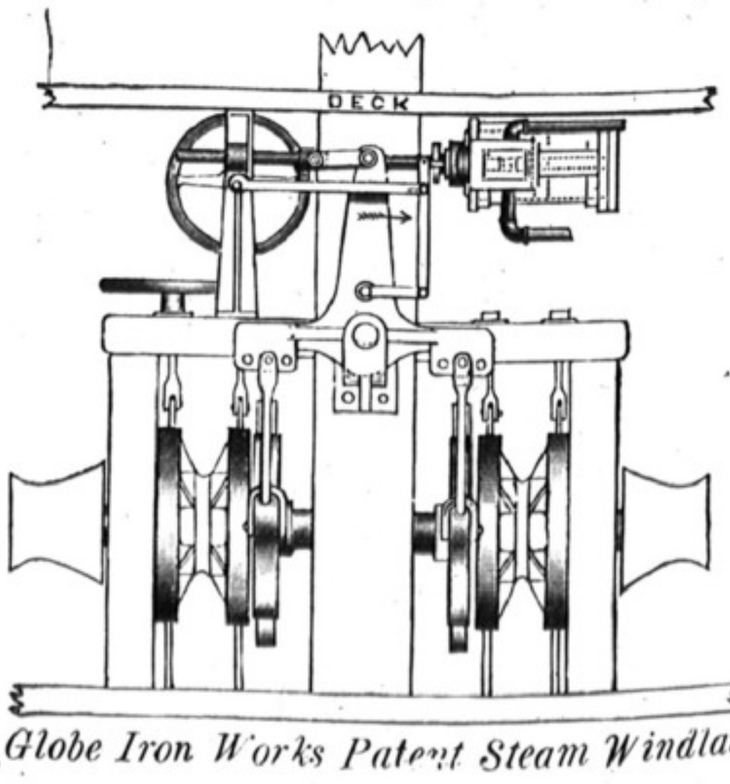
Ship Chandler's List.



Celebrated Chain Sheave Windlass, with Amazeen Beam.



The Common Patent Windlass.



Globe Iron Works Patent Steam Windlass